DECEMBER 29, 1945

Railway Age

Founded in 1856

THE LIBRARY OF CONGRESS SERIAL RECORD
JAN 11 1946
GIFT

NEW 3000-hp. DIESEL-ELECTRIC to Speed Freight on the Seaboard

This 3000-hp. single-unit diesel-electric, first of its type, will step-up the delivery of Florida fruits and winter vegetables to northern markets.

It is the latest addition to Baldwin's complete line of diesel-electrics for all classes of railroad service. The Baldwin Locomotive Works, Philadelphia 42, Pa. Offices: Philadelphia, New York, Chicago, St. Louis, Boston, Washington, San Francisco, Cleveland, Detroit, Pittsburgh, Birmingham, Houston.

BALDWIN

BLW THE BALDWIN GROUP

BALDWIN PRODUCTS FOR THE RAILROADS: Steam, diesel-electric and electric locomotives, Diesel engines, Hydraulic presses, Special railroad shop equipment, Testing machines and instruments, Steel tires and rolled steel wheels, Crane wheels, Connecting rods and other steel forgings, Steel castings, Springs, Metal plate fabrication, Boilers, Non-ferrous castings, Bending rolls, Plate planers, Dynamometer cars

The EVANS UTILITY LOADER cuts damage and maintenance . . . speeds turn-around

This photograph illustrates the perfect condition of a load of linoleum as it arrived in Detroit from San Francisco in a UTILITY LOADER* car. This consignment was separated from the other portions of the load, which had been removed when photo was taken.

Shippers prefer UTILITY LOADER freight cars. Case histories of loads shipped in UTILITY LOADER cars have revealed the following results:

a. An average increase in payload of 33⅓% (about 6 tons).

b. Average dunnage and damage saving $65.50 per carload. ($38.00 to the shipper and $27.50 to the railroads).

c. Damage prevention 98%.

* T. M. Reg. U. S. Pat. Off.

"U" FOR THE GOOD OF THE RAILROADS

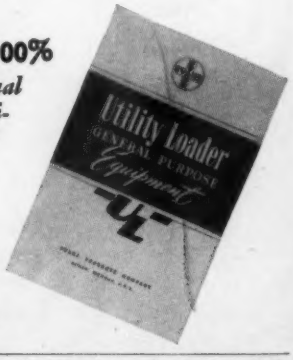
Loading Division

EVANS PRODUCTS COMPANY

DETROIT 27, MICHIGAN

BOOST CAR CAPACITY 30% TO 200%

Write for the EVANS Manual today and discover the manifold advantages of UTILITY LOADER shipments.



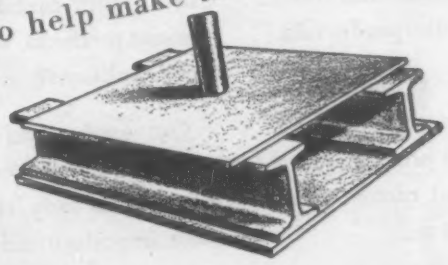
EVANS DETROIT PLANT FLIES ARMY-NAVY "E" PENNANT

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 119, No. 26.

the Happiness of this Christmas

more than ever rests upon A FOUNDATION OF STEEL

It
was ★
the steel
in the hands
of fighting men
★ steel in all kinds
of weapons ★ that won
the Victory which makes
this Christmas so filled ★ with
good cheer and happiness. The boys
are coming home ★ in steel ships ★ on
steel rails and in airplanes that depend
upon ★ steel for engines and many other parts.
Their presence gives this holiday ★ that old-time
family reunion flavor ★ makes it the gayest yuletide we've
known for many, many years. For this we raise our voices in
thanks, in the old familiar ★ carols of spontaneous song ★ In all
humility, ★ we are proud of the service we have been able to pro-
vide to help make this Christmas gay.



INLAND STEEL COMPANY
38 SOUTH DEARBORN STREET
CHICAGO 3, ILLINOIS

INLAND STEEL

CONSULT WITH COLGATE ON

LIGHT METALS

If you are interested in substituting light metals for present materials—have a tricky or complicated job, where Aluminum, Magnesium or Stainless Steel might be used....that is our specialty!

Colgate Aircraft Corporation, as a result of its wartime experience in building sub-assembly parts for planes, has brought something new to the light metal field.

Of course we will take parts fabrication and assembly jobs where the blueprints are all ready for production.

But one of our biggest assets is the ability to lick the hard problems, to relieve the manufacturer of the need for planning and engineering his products in light metal production.

IMPORTANT DISCOVERY

Colgate, long ago, discovered that the most important aid to a manufacturer often was *before* the job went into production.

We found out that the most helpful aid was the furnishing of a complete *engineered service* that took the problem at its inception and worked it out almost from the "idea basis" to completion.

This *realistic* co-operation in the planning, followed by quality control, constant supervision, and experienced personnel operating the latest in modern facilities, is one of the reasons why Colgate is earning a good reputation for assisting manufacturers in fabricating aluminum, magnesium or stainless steel parts and assemblies.

Deliveries on time is another factor in Colgate operations which is a part of the *dependability* of its *engineered service* available to the industry.

WHY NOT FIND OUT?

Before dismissing the possibility of the use of light metals as a substitution for present products, why not write to us about your problems?

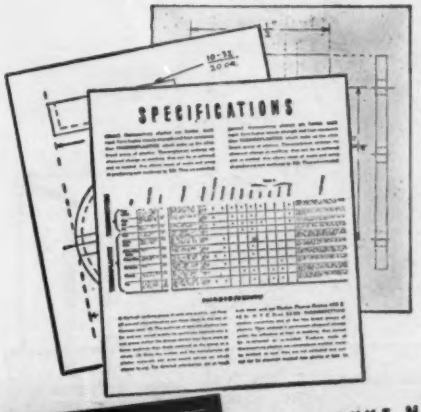
Our *engineered service* is available to you for consultation without charge and a conference may result in furnishing you with important aids to your business.

COLGATE *Aircraft Corporation*

AMITYVILLE, LONG ISLAND . . . NEW YORK

LIGHT METAL PRODUCTS DIVISION

Almost no limit to what you can duplicate with this NEW BRUNING Photographic Printer!

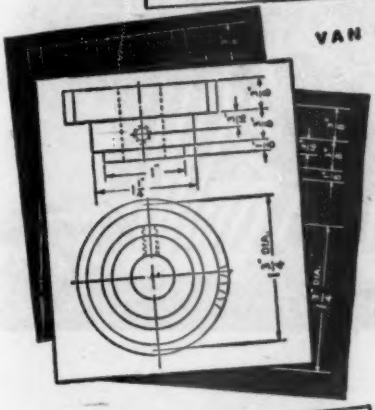


TRACINGS

LINE DRAWINGS

SPECIFICATIONS

VAN DYKE NEGATIVES



BLACK AND WHITE PRINTS

BLUE PRINTS

ILLUSTRATIONS

• Now you can use this new *photographic* reproduction process right in your own drafting room or engineering department! With the Bruning Model 2 BW and Copyflex Continuous Printer, there is practically no limit to the kind of materials you can duplicate! You can have copies of anything typed, printed, illustrated or drawn. Original material with copy on both sides can be reproduced from one or both sides.

Both Copyflex photographic and BW Black and White sensitized materials are exposed on the Model 2 Printer. Copyflex prints are developed with three trays and a simple drier (readily available). BW prints are developed in the Model 153M developing machine, combined in a convenient stand with the printing unit. Moderately priced, the Model 2 Printer and 153M Developer increase your duplicating scope—provide a wider range of duplicating advantages. Mail the coupon for literature about this modern print-making method.

CHARLES BRUNING COMPANY, INC.

Since 1897

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St. Louis	San Francisco	Seattle	

CHARLES BRUNING COMPANY, INC.
4748-50 Montrose Avenue, Chicago 41, Illinois
Please send me complete information on your Model 2 BW and Copyflex Continuous Printer—and on other Bruning printing and developing machines for making Bruning Black and White Prints.

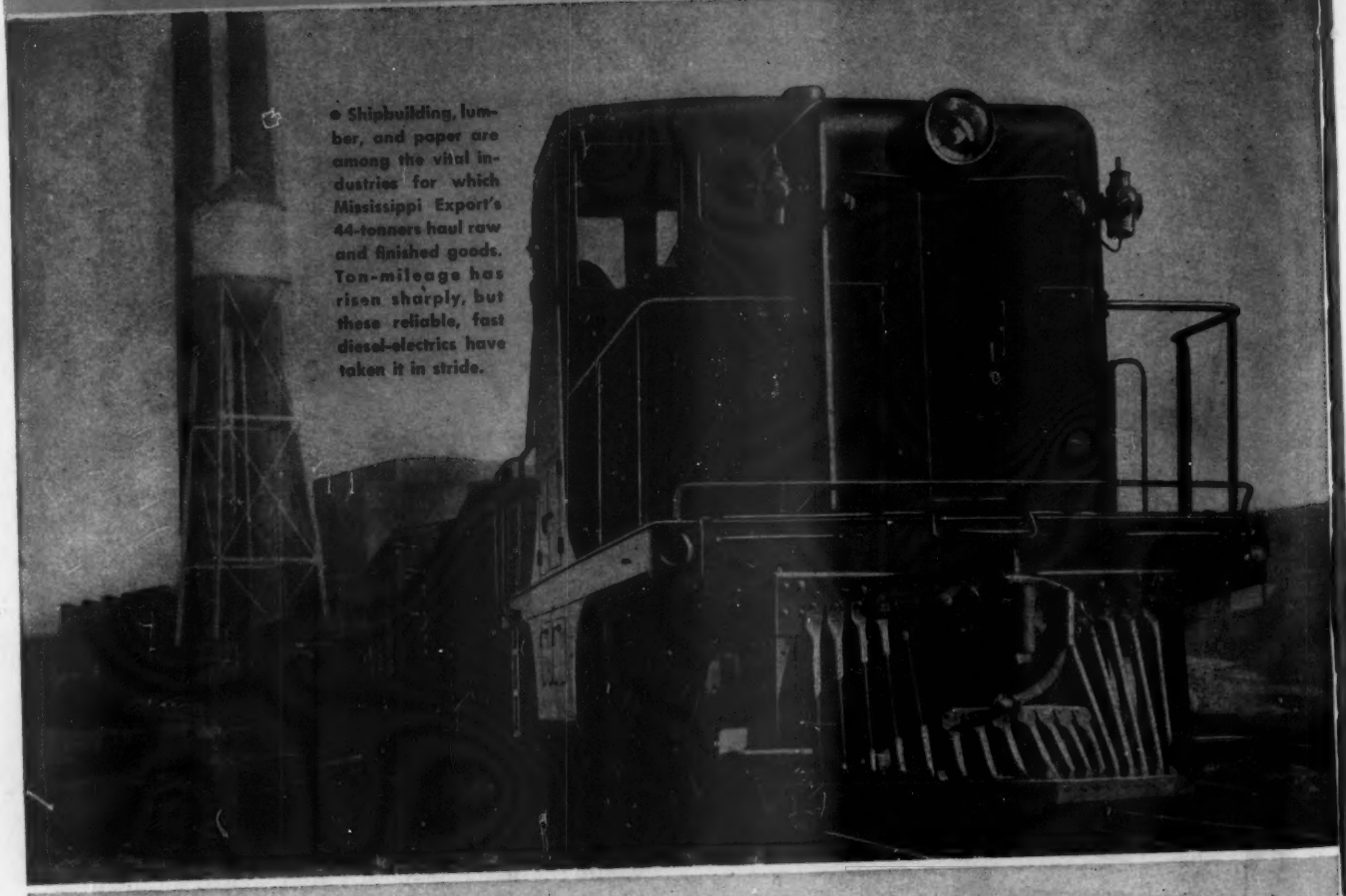
Name.....

Company.....

Street.....

City..... *State*.....

Every day THIS 44-TONNER



• Shipbuilding, lumber, and paper are among the vital industries for which Mississippi Export's 44-tonners haul raw and finished goods. Ton-mileage has risen sharply, but these reliable, fast diesel-electrics have taken it in stride.

• Double-headin' two 44-tonners permits hauling much longer trains, when necessary—up to 3000 tons between Evanston and Moss Point.

Alco GE

AMERICAN LOCOMOTIVE

WORKS 20 HOURS *continuously*

Since it became an all-diesel-electric road, MISSISSIPPI EXPORT is saving $30 per locomotive per day.

These savings began in October, 1940, when the first 44-tonner went into service. They are the result of versatility, high availability, and high utilization.

VERSATILITY. Every day this war-busy locomotive *switches* cars at Pascagoula and Moss Point, then *accumulates* a train and hauls it *on the road* for 38 miles to Evanston—interchange point with the G M & O. Here it is again used for *switching*, and then makes the return *road* trip with another train to Pascagoula, where connections are made with the L & N.

AVAILIBILITY. Its average is 95 per cent, because it can stay at work for many hours without interruption for fueling or servicing.

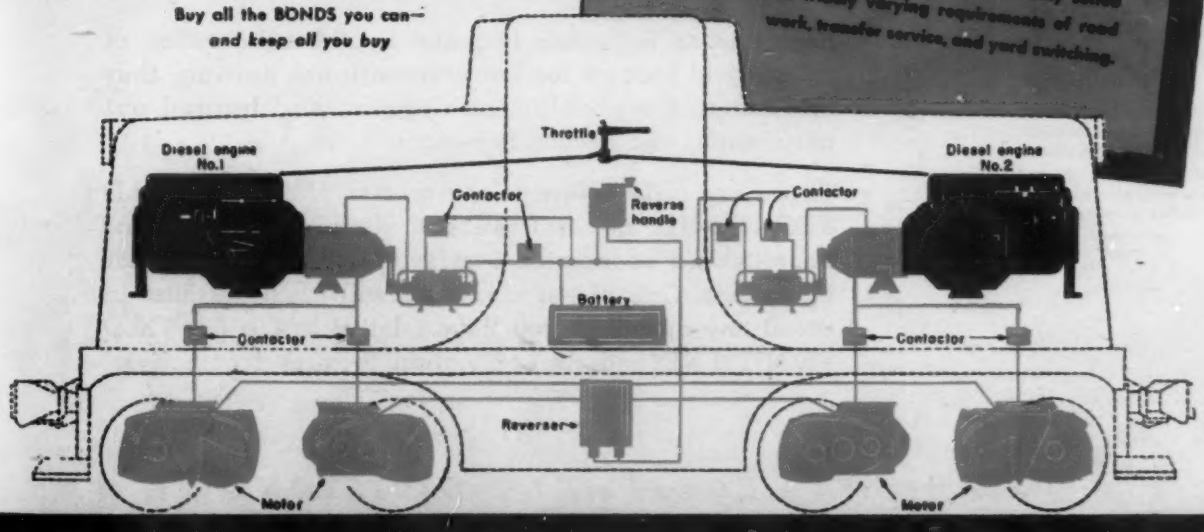
UTILIZATION. Averages 83 per cent, or 20 hours per day—10 in switching and transfer service, and 10 on the road.

In addition to saving $30 per locomotive-day on operation, track maintenance has been reduced. One section of the roadbed, over a tidewater area, is soft and, before the diesel-electric was operated, was often under water because of the continual pounding of the former motive power. Since arrival of diesel-electrics, this maintenance job has been practically eliminated.

In 1941, the road purchased another 44-tonner. Double headed, these two units are hauling trains as heavy as 3000 tons from Evanston to Moss Point. Mississippi Export is one of scores of roads we have been privileged to serve in applying motive power that has earning power. In this instance, it was small diesel-electrics. In your case it might be a straight electric, a steamer, or a larger diesel-electric. We build all three, which enables your Alco or G.E. representative to recommend the type economically best suited to the job.

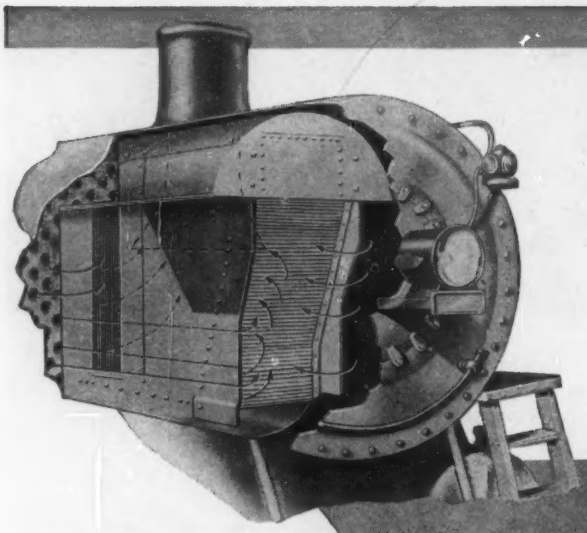
THE INSIDE STORY

High availability and versatile operation of the 44-tonner are largely the result of electric drive which delivers full engine horsepower to the wheels smoothly and at all locomotive speeds. In effect, it provides an infinite number of gear ratios which change automatically to meet load conditions, and it permits full diesel-engine output throughout the speed range of the locomotive, regardless of grades or trailing load. Thus, this 44-tonner is admirably suited to the widely varying requirements of road work, transfer service, and yard switching.



and GENERAL ELECTRIC

121-31-9580



Minimum Maintenance with

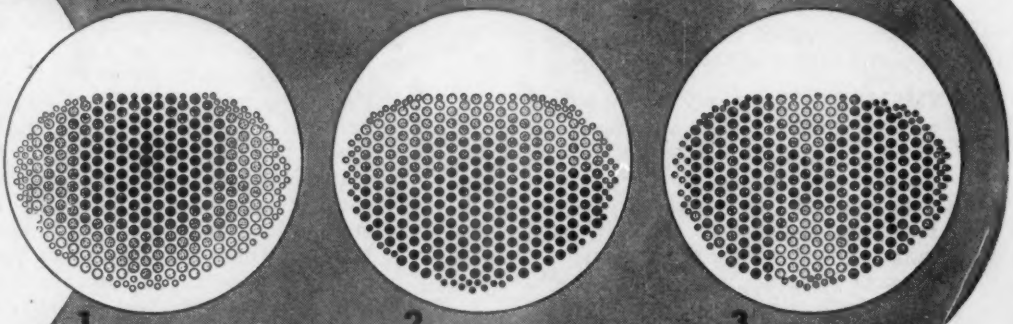
AMWELD FRONT END ARRANGEMENT

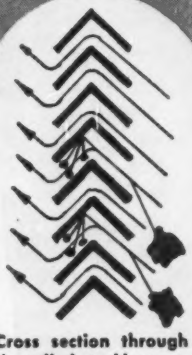
— PATENTED —

1. Theoretical unbaffled condition, showing the relatively high velocity of flue gases through the center tubes.

2. Conventional baffling, showing the relatively high velocity through the lower tubes.

3. AMWELD Aerodynamic baffling, showing the relatively constant velocity through all tubes.





Cross section through the rolled steel louvers, showing the exclusion of large cinders and pulverization of the smaller cinders.

Maintenance problems in connection with the AMWELD FRONT END are considerably simplified. AMWELD aerodynamic baffling produces an equalized draft which results in longer flue life and materially reduces flue cutting. Sketches above show the relative flow of flue gases without baffles, conventional baffles and AMWELD aerodynamic baffles.

Repair work is further lessened by the substitution of rolled steel louvers for the conventional netting, thus eliminating the problem of clogging and burned-out perforations and excessive wear.

These are only a few of the merits of the AMWELD FRONT END. Several railroads have adopted it for benefits and economies best suited to their particular operations. One of our engineers will gladly discuss in detail any questions you have relative to the AMWELD FRONT END and its application to your locomotives.

RAILWAY EQUIPMENT DIVISION

THE AMERICAN WELDING & MANUFACTURING CO.

WARREN, OHIO

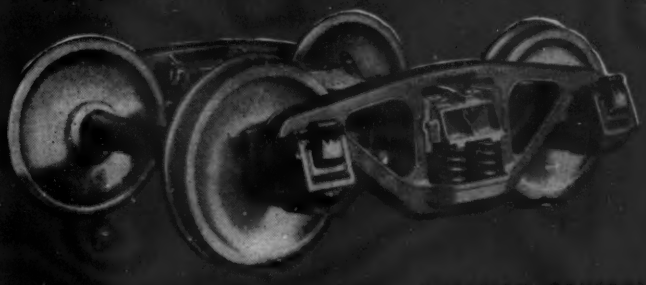
New standards of performance in operation, riding ease, and safety, are being set by the A.S.F. Ride-Control Truck on railroads all over America. The 50,000 miles of test train study back of this truck already has resulted in millions of miles of better freight car service.

MINT-MARK OF ⬡ FINE CAST STEEL

Over 18,000 car sets of this modern freight car truck are already in service or on order by 44 railroads and private car owners.

A-S-F Ride-Control TRUCK (A-3)

NO SPRING PLATES—NO SPRING PLANKS

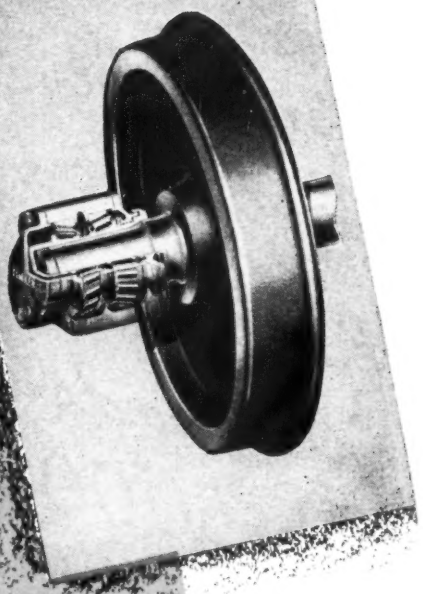


SPRING TRAVEL · CONSTANT FRICTION CONTROL

AMERICAN STEEL FOUNDRIES

TIMKEN BEARING EQUIPPED

One of 25 new high-speed "BX" box cars Timken Bearing Equipped in all journals, built by the Great Northern Railway. The Great Northern also built a similar car of Alcoa Aluminum---and likewise Timken Bearing Equipped. A. S. F. Ride Control Trucks are used under these 25 cars.

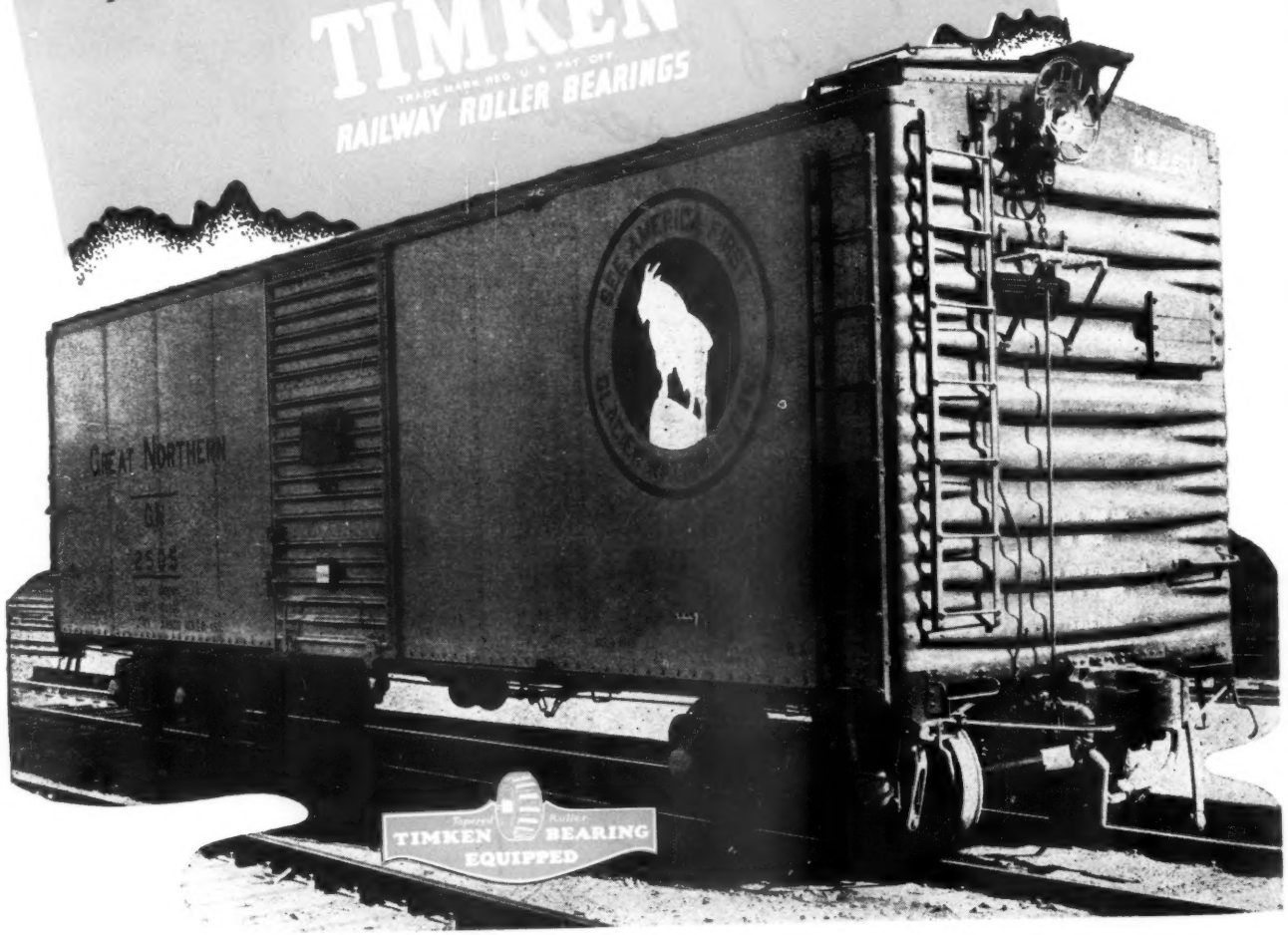


Timken Roller Bearings now are available for all types of new, high-speed freight car trucks. The Timken Roller Bearing Company, Canton 6, Ohio.

TIMKEN

TRADE MARK REG. U. S. PAT. OFF.

RAILWAY ROLLER BEARINGS



PLANTS IN: ST. L

December 29, 19

PPED

RAILWAY ACE

Stepped-up schedules will mean more wear and tear on motive power in the days ahead. To help prevent costly breakdown delays—keep your locomotives out of the backshop—standardize on unfailing

N·B·M ENGINE CASTINGS AND BEARINGS

N·B·M

NATIONAL BEARING DIVISION

ST. LOUIS • NEW YORK

AMERICAN Brake Shoe COMPANY

PLANTS IN: ST. LOUIS, MO. • PITTSBURGH, PA. • MEADVILLE, PA. • JERSEY CITY, N. J. • PORTSMOUTH, VA. • ST. PAUL, MINN. • CHICAGO, ILL.

REFLECTIVE INSULATION SEALS WEATHER OUT OF ALL TYPES OF CARS AND COACHES

Heat rays bounce off Silvercote Reflective Insulation as light is reflected by a mirror. Uniform temperatures are easily maintained in railway refrigerator cars, as well as in passenger cars and cabooses. It is the same principle utilized to seal out weather as that employed in a thermal bottle.

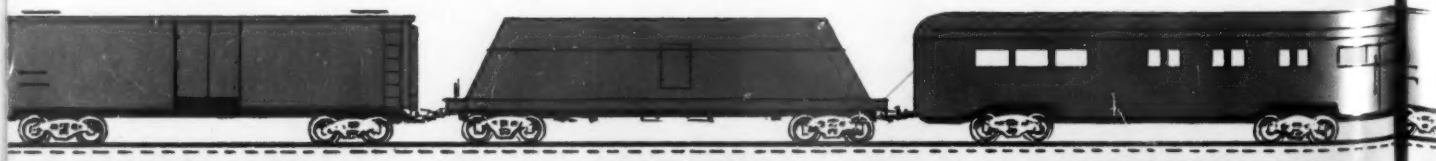
There are many advantages to the use of Silvercote in the construction of all types of railway cars and coaches. For example, railroads will find it effective and profitable in maintaining comfortable temperatures in suburban railway coaches which have been standing half a day or more in the sun or cold of a railroad yard.

Manufacturers of railway equipment find Silvercote well suited to their requirements, because (1) it is comparatively inexpensive, (2) it is compact and light in weight, (3) it is impervious to the penetration of air, (4) it is waterproof and vapor resistant, (5) it is installed with the least wastage, (6) it is furnished in any width up to 120 inches without a lap and in length to 500 feet, (7) it combines excellently with all other insulating materials. More than 25,000 railway refrigerator cars are insulated with Silvercote.

Considering all factors of price, convenience and insulating value, Silvercote dovetails into railway car construction. Additional and more specific information and samples gladly furnished upon request. Just write.

SILVERCOTE PRODUCTS, Inc., 161 East Erie Street, Chicago 11, Illinois

"PIONEERS IN REINFORCED REFLECTIVE INSULATION"



REFRIGERATOR CARS MILK CARS RAILWAY COACHES

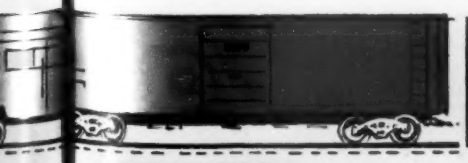
S RAILWAY CARS

Tests Reveal Effective Insulation by SILVERCOTE

The effective insulating qualities of Silvercote are revealed in tests by a number of reputable laboratories, some of which show a thermal conductance of 0.245 when Silvercote divides 1½" air space, others a conductance of 0.23. When one side of Silvercote faces ¾ of an inch air space the conductance was found to be 0.441. Photostatic copies of the reports on these tests are available upon request.

FLAMEPROOF SILVERCOTE Now Available

We are happy to announce that we are now able to furnish SILVERCOTE flame-proofed. This is the first time that a reflective insulation, combining reflective sheets, asphaltum and reinforcing strings, has been flame-proofed. Regular SILVERCOTE insulation fabric, flame-proofed, is available in all widths up to 12 feet. In addition, SILVERCOTE can now be furnished with a vapor-barrier adhesive that will combine it with any other insulation used in refrigerator and other railroad cars. Let us send you samples of the new Flame-proof SILVERCOTE.

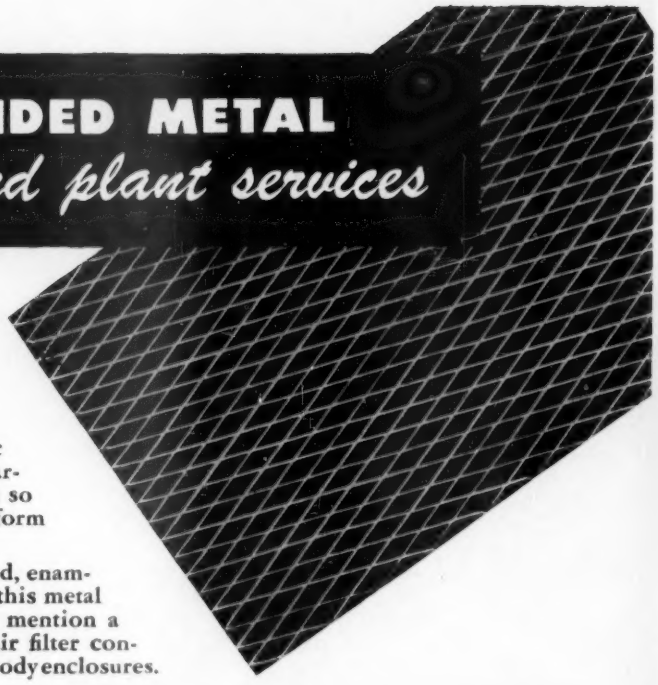


FREIGHT CARS

SILVERCOTE

REFLECTIV

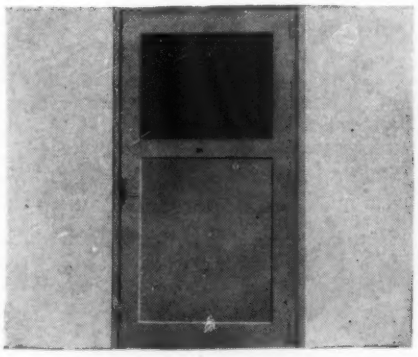
TRUSCON EXPANDED METAL
the steel of a thousand plant services



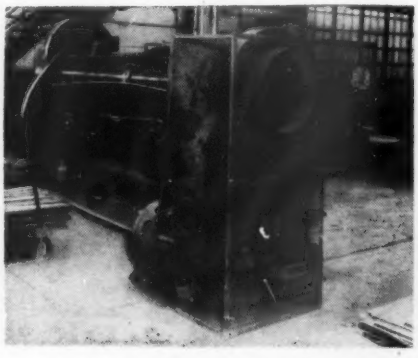
TRUSCON EXPANDED METAL is one of the best friends a Plant Engineer ever had. Light, strong, rigid, workable, easily formed or cut, it is used for an extremely wide range of essential services in America's manufacturing plants.

Truscon Expanded Metal is a diamond mesh fabric expanded into flat sheets from a solid plate of low carbon open hearth steel. The steel is cut and drawn so that regular and even diamonds are formed with uniform strands.

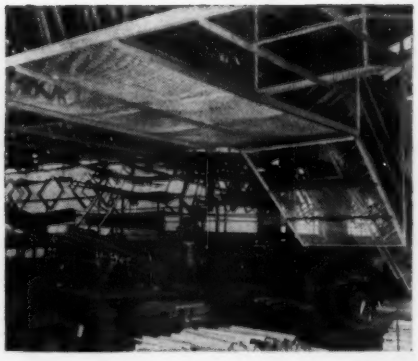
Truscon Expanded Metal is furnished plain, painted, enameled, bonderized or galvanized. Six applications for this metal mesh are shown below. Other suggested uses—to mention a few: tree boxes, refuse burners, hot air registers, air filter containers, louvers, waste baskets, radiator covers, truck body enclosures.



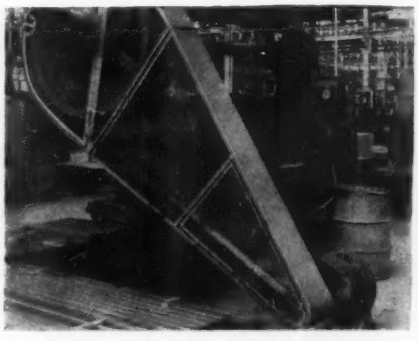
This Truscon Expanded Metal grid in a tool crib door provides visibility, protection and circulation of air, at a very low cost of material and installation.



A safe Truscon Expanded Metal enclosure for this belt costs but a few dollars. It affords certain protection against costly shop accidents, lost man hours, reduces cost of insurance premiums.

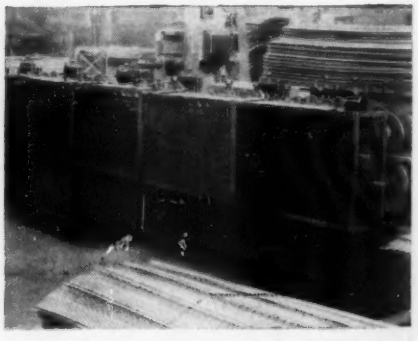


Workmen who must pass beneath overhead conveyor systems are insured against injury from falling objects by this safety net of Truscon Expanded Metal.



Truscon Expanded Metal can be cut with snips to any shape. This pulley and belt guard is an example of its flexibility in actual use. Machine repair men can easily disassemble this guard.

Perhaps you need a strong mesh fabric for reinforcing concrete flooring. Truscon Expanded Metal is manufactured in a variety of gauges and sizes according to job requirements.



All moving machinery and equipment in a plant is a constant hazard to life and limbs. Protect your employees with Truscon Expanded Metal for guards.

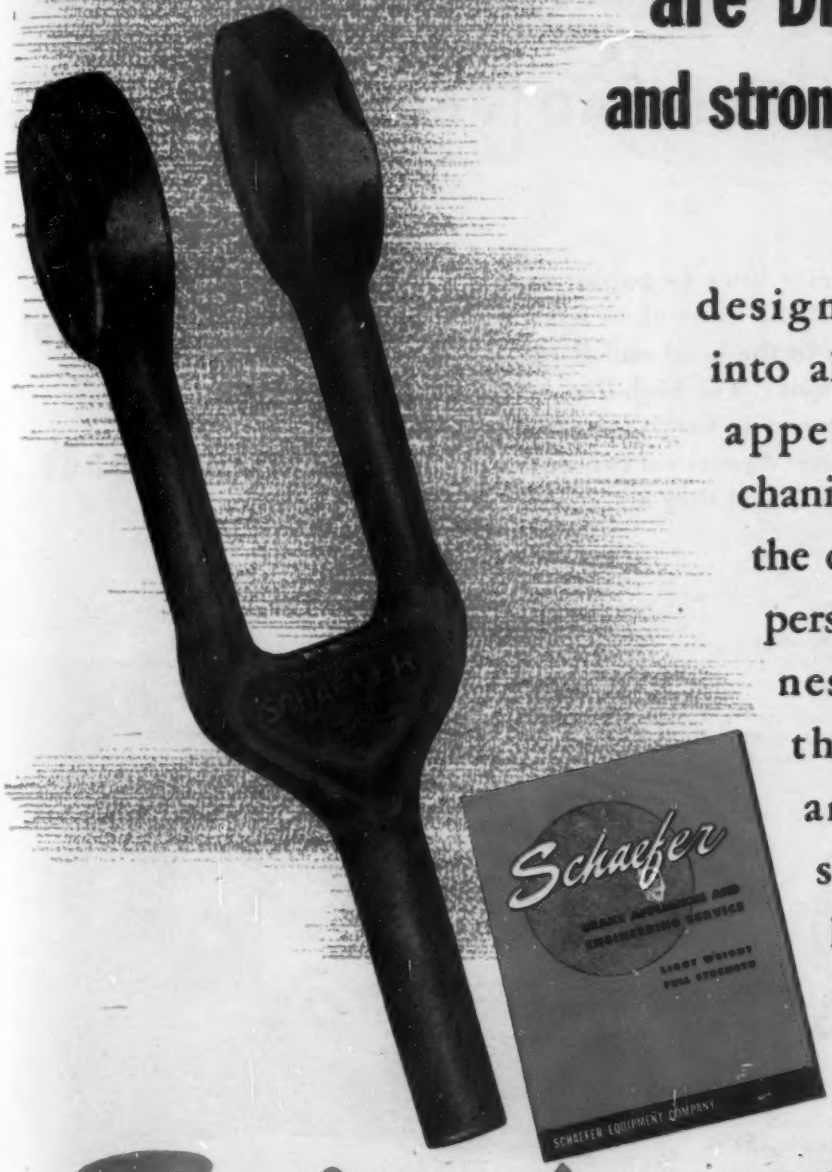
Write for Sales Bulletin No. B-420 for a description of the types and properties of Truscon Expanded Metal. Truscon Steel Company will gladly give engineering and designing assistance to your maintenance and safety engineer. This service involves no obligation.

TRUSCON
Reg. U. S. Pat. Off.
Steel Company

Youngstown 1, Ohio

Subsidiary of Republic Steel Corporation

Schaefer BRAKE ROD JAWS
are Drop Forged—
and stronger than the ROD

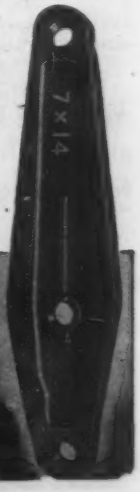


The features designed and built into all Schaefer Jaws appeal to both mechanical engineers and the operating and shop personnel. ★ Their lightness, compared with the common types, and their forged-in strength, help insure longer life in service.

For complete details, see the new Schaefer catalog— Copy sent on request.

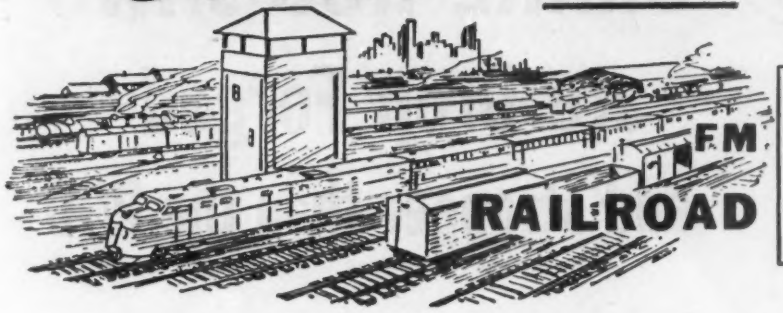
Schaefer EQUIPMENT COMPANY

KOPPERS BUILDING • PITTSBURGH, PA.



LOOP, "U" AND STIRRUP TYPE BRAKE BEAM HANGERS . TRUCK, CYLINDER AND FLOATING LEVERS
TRUCK LEVER CONNECTIONS . BRAKE ROD JAWS . WEAR PLATES . BRAKE SHOE KEYS

Comco — READY FIRST WITH



SPACE RADIO VHF SYSTEMS—

No phone wires or carrier lines to go out in emergencies. FM space Railroad Radio Control, as engineered by COMCO, bores through to the head end from tower or caboose under all conditions. For high-line or classification yard work, you can count on COMCO units, engineered by men who have pioneered practical two-way transportation control for 16 years. And they are ready NOW for delivery.

Already proven in Actual operational Tests by four Leading railroads

FOR THE AVERAGE REQUIREMENT

Model 173-R Receiver	Model 172-T Transmitter
6"x12"x7½"—7½ lbs.	10"x12"x9"—13 lbs.
Full Squelch	15 Watts Output

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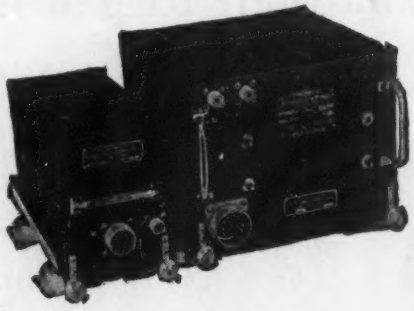

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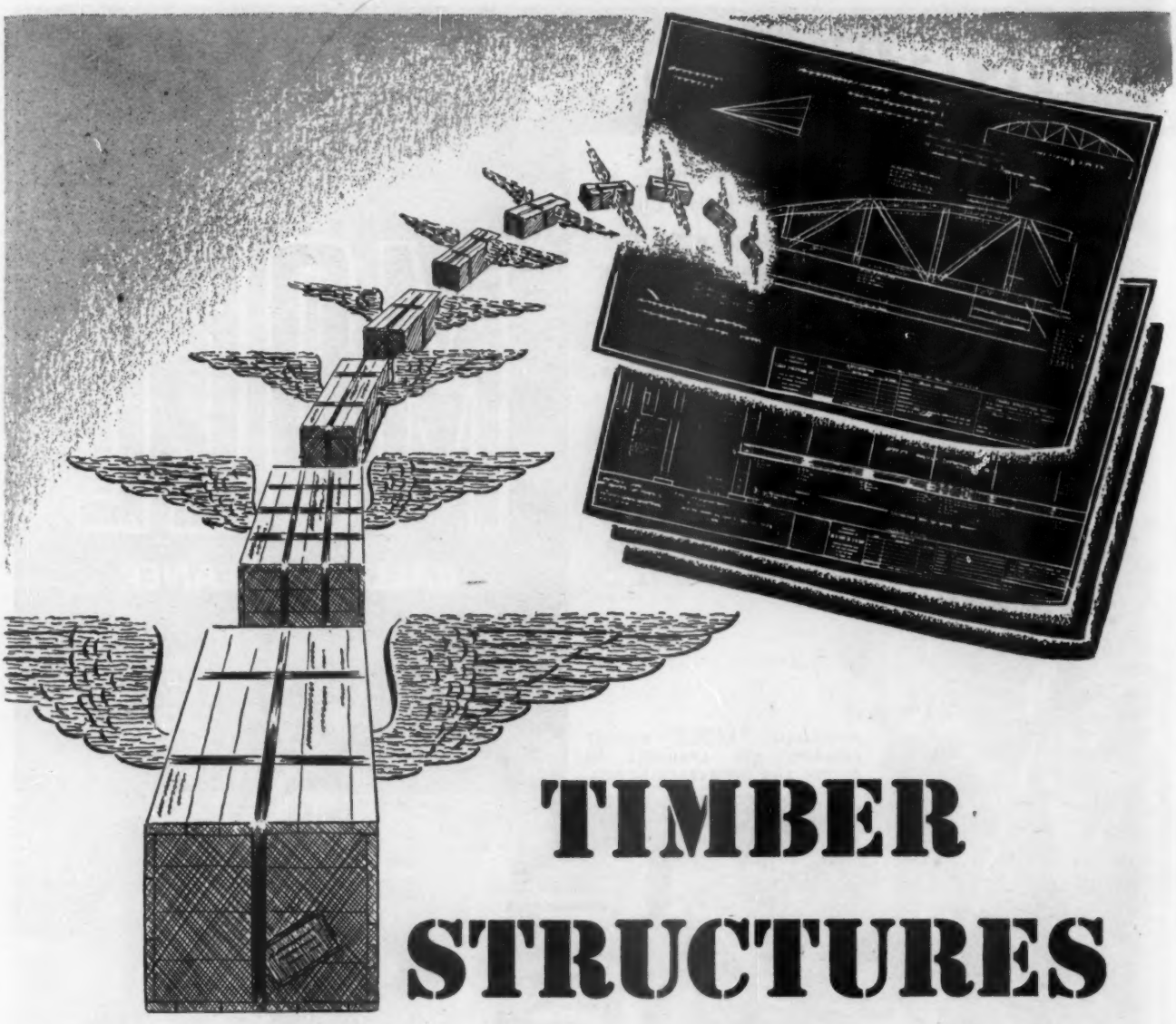

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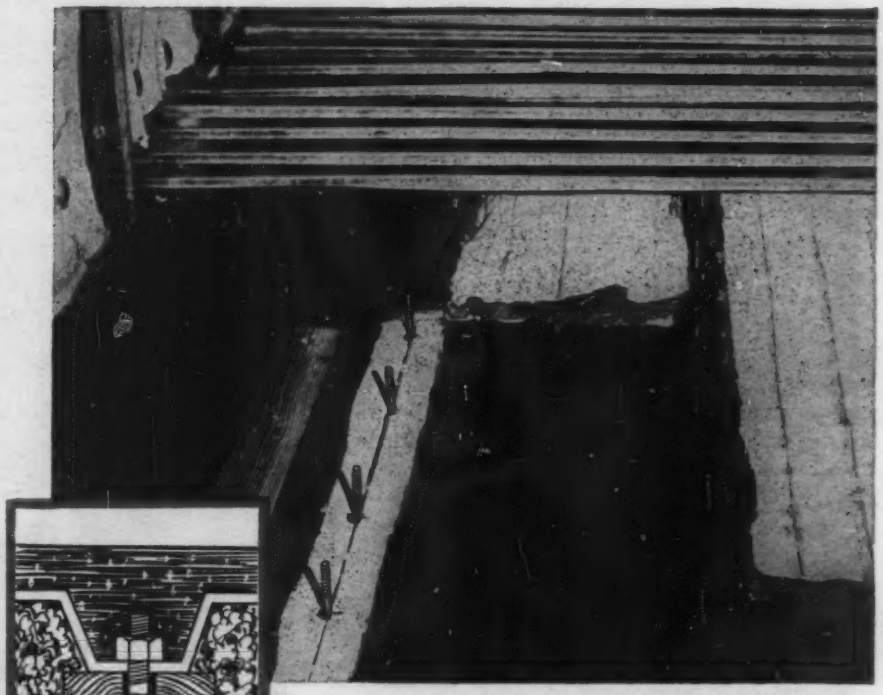
Another **NELSON** *cost-cutting Railroad Application*

How to speed up CAR RE-FLOORING with NELSON STUD WELDING



Photograph courtesy Southern Pacific Company

FORMERLY, the passenger car re-flooring job shown at right required drilling through car sills and floor beams to take through-bolts securing the furring strips and interlocked steel sub-flooring. In order to insert and tighten the bolts, it was necessary to remove much of the equipment underneath the car, all of which had to be reinstalled.

With the Nelson Stud Welder on the job, the necessary studs were welded on top the car sills and floor beam as shown in the photo (welding time, ½ second per stud). The drilled furring strips and sub-floor sections were slipped over the studs, nuts run down, and the composition flooring troweled in and finished. No under-car equipment was removed; in fact, no man was required beneath the car at any time. The result was a securely-anchored floor, completed days ahead of usual time.

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OTHER NELSON FLOORING METHODS

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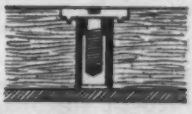
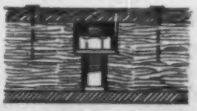


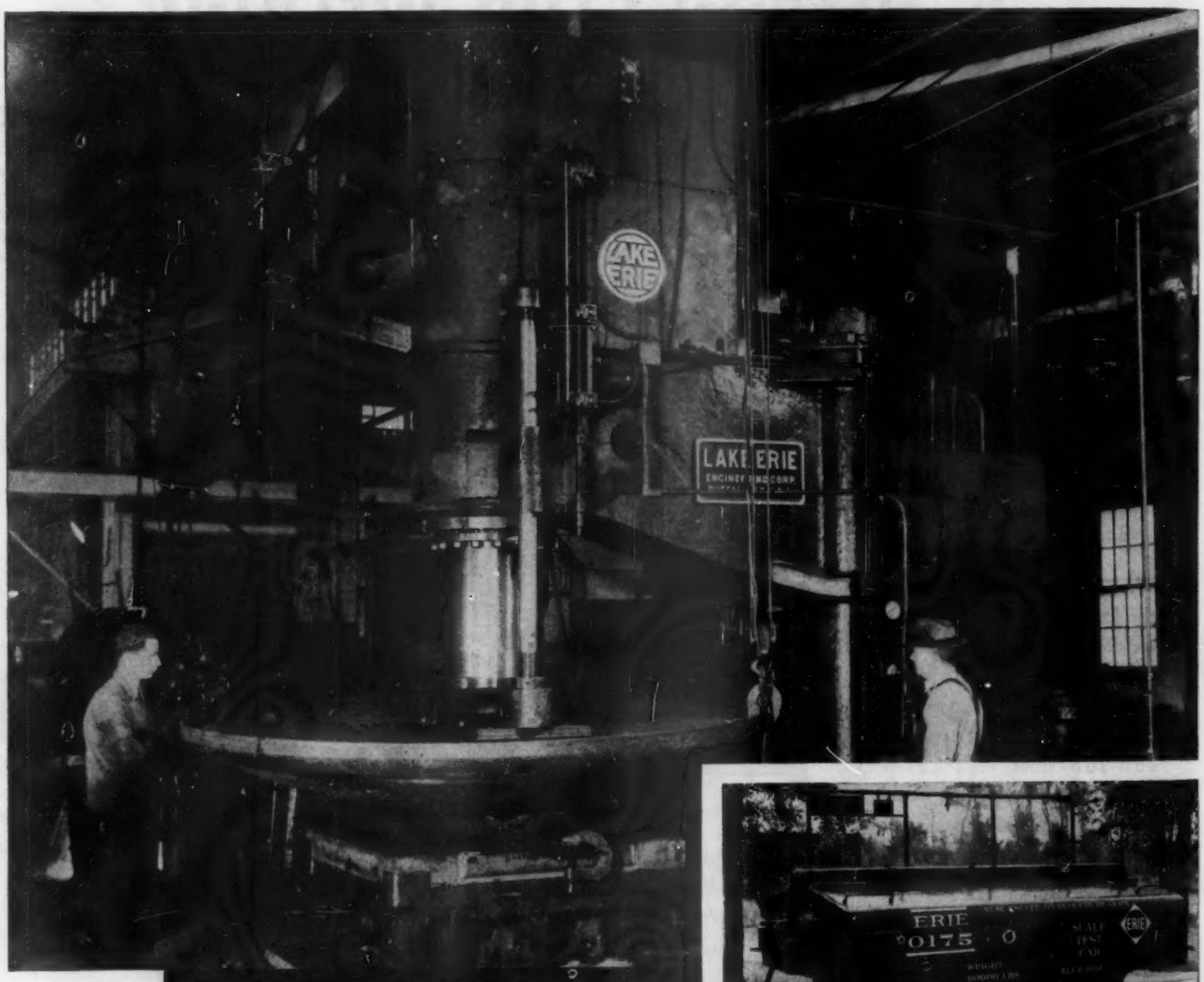
WATERTIGHT SCREW AND FEMALE STUD



STUD SECURING FURRING STRIP

OTHER NELSON FLUX-FILLED STUDS

MANY RAILROAD PROBLEMS YIELD TO "Power of the Press"



Lake Erie Universal hydraulic flanging press of 300 tons capacity, one of the many standard types of Lake Erie Hydraulic Presses.

Lake Erie Scale Test Car for accuracy and dependability.

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No other single piece of machinery will help our railroads more in their maintenance problem than Lake Erie Hydraulic Presses. Lake Erie's long experience in designing and building hydraulic presses in a complete range of sizes and types will enable the railroads and their suppliers to do a better, quicker and more economical job. Lake Erie's engineering, supervisory and production forces can assist the railroads, their suppliers and the entire metal forming industry in solving their reconversion and peacetime metal forming problems.

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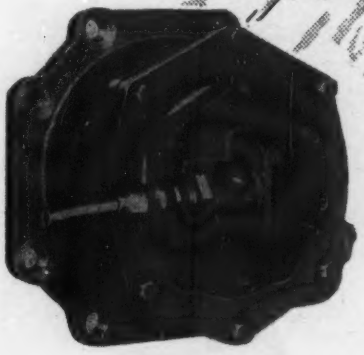

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Railway Age

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Vol. 119 December 29, 1945 No. 26

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In This Issue

PAGE

I. C. Renovates Two Old Train Sheds ***1046***

Old high arch structure trimmed down supports new flat roofs in the Illinois Central's Chicago and New Orleans terminal modernization.

German Condensing Locomotive ***1051***

Giving general dimensions and weights and describing this locomotive which will run 660 miles before taking on water.

How Industry Can Make Friends for Itself ***1053***

Industry must adopt socially desirable objectives, and convince the public of its merits as the group most likely to make a success of operating the economy.

EDITORIALS

President Truman on Unified Services 1043
Why All the Rush in Sending Mexicans Home? 1044
Bread Over the Waters 1044
The Honeymoon Is Over 1045
Railroads Heavy Buyers in Shop Equipment Market 1045

GENERAL ARTICLES

I. C. Renovates Two Old Train Sheds 1046
Recorder for Train Communication 1050
German Condensing Locomotive 1051
How Industry Can Make Friends for Itself, by Holcombe Parkes 1053
T. C. General Calls for Big Road Program 1055
George F. Ashby to Head Union Pacific 1056

GENERAL NEWS **1058**

WITH THE GOVERNMENT AGENCIES **1061**

The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service.

★

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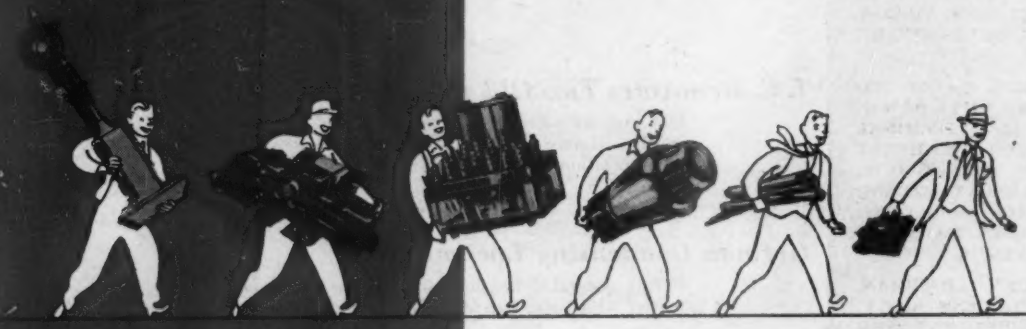
Progress *in signaling requires*

GOOD TEAMWORK



Every development in modern signaling is the result of cooperative effort of many persons, each with special qualifications in his own field.

Consider modern coded systems of Centralized Traffic Control for example. These are the result of research and development engineering in many different fields. Exact knowledge of necessary system characteristics and sound mechanical and electrical engineering were supplemented by laboratory work in electronics, field tests of communication facilities and design of apparatus for reliable and economical service.

In addition, these coded control systems had to be effectively coordinated with other elements which were available—many different types of signals, switch machines, track circuits and a variety of controlling devices.

Obviously, no one man could have the necessary specialized knowledge in all of these fields—but our trained and experienced staff of experts made the development possible.

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The Week at a Glance

3 MORE MONTHS OF PULLMAN: The three-judge federal court at Philadelphia, which has okayed the sale of the Pullman Company's sleeping car business to the principal railroads operating the service, has issued a supplementary order authorizing the extension to March 31 of the *status quo* of Pullman operations (heretofore scheduled to cease on December 31), to permit the necessary paper work to be done to establish the new regime.

●

ASSAY OF PUBLIC RELATIONS: A comprehensive analysis of industry's public relations job and an operating plan which meets the task's requirements were presented at the recent annual meeting of the National Association of Manufacturers by the N. A. M.'s public relations vice-president, Holcombe Parkes, and are published, in condensed form, in this issue. Anyone who has done much observation and thinking on public relations problems will, we believe, recognize the penetrating insight of Mr. Parkes' analysis; and will realize that he has come close to a prescription which actually hits the major symptoms of the case.

●

PUBLIC RELATIONS CAPSULE: The goal of industry's public relations must be to show that private business management is doing a better job for the public than politicians or revolutionary labor leaders would do. Public suspicion of private management arises because management seldom talks about its concern for the public interest, while its critics seldom talk about anything else. The public, not unnaturally, infers that business management cares little except for itself, while virtues are ascribed to business' critics which they possess only in the form of oratory. The public relations job, then, is to gain recognition for the interest which business management has in *ends* which the public wants, and to show how the *means* it employs toward such ends are more effective than any others available. Opinion research has disclosed what segments of the public are most likely to give heed to accurate information about the functioning of private business; and the "indicated" procedure on such a set of facts is self-evident. The foregoing outlines Mr. Parkes' diagnosis, and it is quite clear that it applies as much to the railroads as to manufacturing.

●

NEW U. P. PRESIDENT: William M. Jeffers will retire on February 1 as Union Pacific president, after a career of 56 years, spent entirely on the U. P. He will be succeeded by Executive Vice-President George F. Ashby, who hails from Dixie but has been in the service of the Union Pacific since 1911.

●

ARMY TO DESERT RRs?: Most people who followed the remarkable performance of the Army's transportation corps during the war were impressed with its demonstration of transport coordination; there was little evidence of a tendency to develop one type of transportation to the neglect of the inherent usefulness of the others. Now, however, a transportation corps brigadier has made a speech—reported in this issue—in which he comes out for a domestic highway system big enough to replace the railroads in the event of another war. The reason he gives is that he expects the enemy will knock the railroads out when the next war begins. If this logic be pursued, it is evident that a fleet of planes and airports big enough to take over all the nation's transport job should also be provided as a reserve, in the event that the enemy knocks out the superhighways too. If there is one place in government where, one might expect, a specialist's enthusiasm for one form of transportation would be subordinated to a superior concern for the well-being of the transportation system as a whole, that place is the Army transportation corps. General Lastayo's pronouncement comes, therefore, as somewhat of a surprise.

●

INEPT GOVT. ORGANIZATION: The arguments which President Truman uses in support of his proposal for unifying the armed services apply with even greater cogency to support the unification of the government's dealings with transportation. Mr. Truman deprecates "piecemeal presentations" by separate governmental agencies before "separate Congressional committees at different times" in the conduct of our national defense—and shows how such "letting not the right hand know what the left hand doeth" leads to conflict and waste. As the leading editorial herein says, however, the compartmentalization of government dealing with transportation is even worse than that in its handling of defense; and, as Mr. Truman appropriately reminds us, "the resources of this nation are not unlimited."

●

EXULTANT AIRLINES: The Air Transport Association has issued, with great satisfaction, a summary of its 1945 operations, reported in our news pages. The industry enjoyed an increase of 57 per cent over 1944 in revenue passenger-miles, operating 402 planes as compared to 359 pre-war. Mail traffic (ton-miles) rose 41 per cent and express and cargo business increased 38 per cent.

●

WAR ON EQUITY-HOLDERS: There is no let-up in I. C. C.'s truculent determination to obliterate railroad stockholders completely, whenever and wherever they are able to lay hands on these unfortunates. Experience has shown that the country needs the transportation property these investors have provided, but the I. C. C. doesn't want them to be paid for it. The Commission opposed the Hobbs bill, passed by the House last winter and held up in Senate committee ever since (allegedly in deference to the Commission's wishes). Now the I. C. C., as reported in the news pages herein, has appeared again on the Capitol Hill to oppose another House measure for stockholders' relief—the Reed bill. The business of saving the Commission's face for having guessed wrong on railroad earnings prospects is proving rather costly to a lot of equity-holders.

MODERNIZED TRAIN SHEDS: The Illinois Central has done a face-lifting job on the train sheds of its principal stations at New Orleans and Chicago. At the latter point, an old high-arch job has been replaced by a low-roofed structure continuous over all tracks, except for smoke slots. At New Orleans, a triple-arch structure has given way to a platform-canopy installation, in which salvaged steel was employed. The operation is described in an illustrated article in this issue.

●

GERMAN CONDENSING LOCO: The Military Railway Service troops found some interesting locomotive developments when they took over Henschel & Son's Locomotive Works at Kassel, Germany—and one of them is described in an article in this issue. It is a condensing locomotive, which reduces water loss from exhaust steam to an extent enabling the locomotive to run close to 700 miles on one tank of water.

●

CONGESTION—WHOSE FAULT?: Chairman Hugh Siddall, of the Western Passenger Association, in a statement this week made it clear that the railroads are not accepting any of the blame for the deplorable congestion in passenger travel which developed during the past ten days or so; or for the delay in the movement of home-bound troops from Pacific ports. Actually at fault are three government actions, viz., (1) acquiescence in delayed delivery (because of strikes) of 1200 troop sleepers ordered last spring; (2) insistence on sending Mexican track laborers home right *now*, using cars which otherwise could be used elsewhere; (3) insistence on returning Japanese evacuees to their Pacific Coast homes right *now*, at the peak of military movement. In Washington, it is pointed out also (as reported in our news pages) that the Army brought far more men home in December than it had asked the railroads to prepare to move.

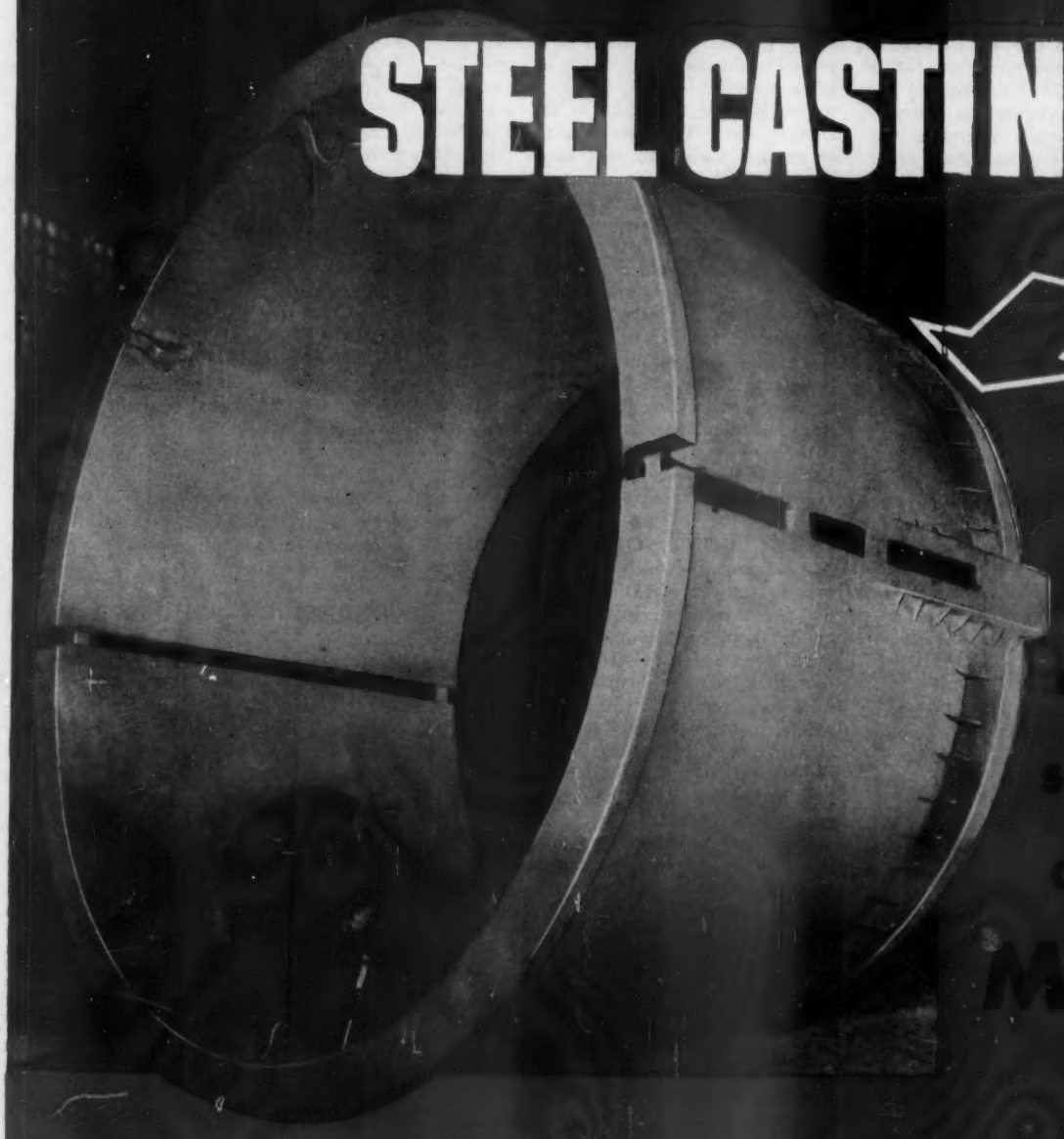
●

FURNITURE-MOVING SET-UP: An I. C. C. examiner has recommended that the nation-wide association of furniture-moving truckers known as Allied Vans be permitted to acquire the operating certificates of some 300 of its 470 participating "agents," and that these "agents," in turn, be authorized to acquire ownership of Allied Vans by purchasing its stock from the present owner, viz., the National Furniture Warehousemen's Association. Even if the I. C. C. approves this plan, Allied's troubles may not be over, because the zealous anti-trust division of the Justice Department is out after the organization.

●

CLASS RATE CHANGE DELAY: On December 21 the three-judge federal court at Utica, N. Y., which heard the petition of the eastern states for an injunction against the I. C. C.'s order in the class rates case, issued a temporary injunction. The I. C. C. had to get busy and grant the railroads short-notice authority to cancel the tariffs embodying the rate changes, which were to have become effective on January 1.

STEEL CASTINGS



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RAILWAY AGE

President Truman on Unified Services

In a message to Congress on December 19 President Truman urged unification at the top or administration level of the armed services in the interest of greater economy and effectiveness. In the course of his discussion he said:

"This war has demonstrated completely that the resources of this nation in manpower and in raw materials are not unlimited. To realize this is to comprehend the urgent need for finding a way to allocate these resources intelligently among the competing services. . . .

"From experience as a member of Congress, I know the great difficulty of appraising properly the over-all *security* needs of the nation from piece-meal presentations by separate departments appearing before separate Congressional committees at different times. . . ."

If, in the second paragraph of this quotation, the word *security* were deleted and *transportation* substituted in its place, the President's observations would still apply with equal timeliness and importance. In recent months Congress has authorized the expenditure of $1.5 billion of federal money (to be matched by an equal contribution from the states) for highway improvements. For airways it has authorized an outlay of $700 million and for waterways almost $400 million. Plans for all these expenditures have originated in "piece-meal presentations" by separate governmental departments and have been passed upon by "separate Congressional committees at different times." None of these projects is in any way related or coordinated with the other; and, of course, it goes without saying that none of them in any way takes into account either the adequacy of existing railroad facilities, or the public interest in the continuation or possible expansion of them.

Nation's Resources "Not Unlimited"

An efficient and dependable transportation system is just as necessary to effective national defense as are the armed forces themselves—to say nothing of the need of such service in war and in peace for the maintenance of the living standards of the population. As President Truman says, "the resources of this nation are not unlimited"; and, in normal times, the ratio of the total national income which is expended for transportation is far greater than that paid out for national defense. In short, the President's warning against the waste of the nation's resources in competitive and uncoordinated expenditures by the armed services applies even more cogently to similar compartmentalized, duplicating and conflicting governmental outlays for transportation.

As a remedy for the wasteful conditions discernible in the present conflict in the organization of national defense, Mr. Truman has recommended unification of the military forces. This same remedy cannot be applied, wholly, in transportation, where a considerable part of the service is provided by private enterprise—but the *government part* of transportation could and should be unified. That is to say, one governmental body should be charged with all regulatory and promotional activities in transportation, and one committee in each house of Congress should have jurisdiction over all transportation questions, whatever the agency involved. Only in such governmental reorganization for the development of a coordinated national policy toward transportation can there lie any hope that governmental action will promote the economy and efficiency of this service rather than defeat its attainment.

"Price System" Necessary to Coordination

But what about the privately owned part of transportation? How can that be coordinated with the governmental part? There is one way, and only one way, by which the activities of private enterprise can *ever* be coordinated with those of governmental or other private enterprise and that is through the operation of the traditional *price system*—which means requiring every tub to stand on its own bottom. If every transportation agency in its relations with government were treated exactly like all other agencies, and if each agency which gets extraordinary services from government were required to pay fully compensatory charges for such services, just as if they were supplied from private sources, then the private enterprise parts of transportation would automatically coordinate themselves with each other and with governmental transportation ventures.

Many government people are constantly endeavoring to take over "planning" for private business. Meantime, government's own operations are more poorly planned and more wasteful than those of any other branch of society. Some better ordering of the government's own affairs is certainly possible, as President Truman has indicated regarding the armed services in terms which are equally applicable to governmental dealing with transportation. If government will set its own house in order, and see to it that the price system has a chance to work in private enterprise, then the nation will go forward purposefully and efficiently once again toward prosperity and national security.

Why All the Rush In Sending Mexicans Home?

Those responsible for the haste with which Mexican track workers in this country are being shipped back across the border, regardless of the needs of the railroads for track labor, and despite the critical need for passenger train equipment to get our veterans home for the holidays, ought to ponder the wisdom of their decision. In the light of recent developments, anything short of sponsoring a "stay" order on Mexican deportations will lay these parties open to serious criticism.

Why the rush anyway? On V-J Day there were approximately 63,000 of these Mexicans in the country, definitely assigned to railway work, largely in the track department. At that time, according to available records, the railroads were still short more than 75,000 employees in all departments, including approximately 31,000 in their track forces alone. In spite of this situation, and reportedly on the theory that some G. I. or released war worker might be deprived of a job if the Mexicans were not moved out of the country promptly, further recruitment of Mexicans for railway work in the United States was halted by an order effective August 20; the renewal of contracts of those already in the country was stopped; and a schedule of deportations was set up, designed to see the last of these workers back over the border by the last week in February, 1946. A number of roads badly in need of track labor, if not almost entirely dependent upon the imported labor for even their minimum maintenance requirements, fought the issuance of the hasty cut-off and removal order without success, although all they asked for was the protection of their man-power needs until domestic replacements could be secured. But no; the ouster group had its way, with results that are proving that it had anything but foresight as to the situation in prospect.

In the first place, that the rate of deportation set up was far in excess of possible replacements by domestic workers and returning veterans is seen in the records of the Railroad Retirement Board, which showed the railroads still with unfilled needs for track laborers of 28,000 as of October 31, the latest date for which figures are available, with signs of only slight improvement since, in spite of the close of the active working season in many parts of the country. Then, too, the deportation order overlooked the inability of the Mexican railways to handle the returning workers south of the border at the rate contemplated, a failure which has caused unrest and some disorder among those whose contracts have expired, and for whom transportation could not be furnished.

But still more serious, the hurry-up deportation policy has failed to take account of the acute shortage that has developed in passenger train equipment to get returning veterans inland from both coasts—and still fails to give recognition to this shortage, in spite of the fact that more than 150,000 returning servicemen have been deprived of all or part of the Christmas-New Year's holiday season with their families because of a shortage in transportation. Meantime, passenger cars which might have been used to transport veterans are tied up hurrying the Mexicans—a large part of whom are in no hurry—back to their homeland.

It is true that the rate of deportations has been slowed down to 13,000 to 15,000 a month from the rate originally contemplated, because of the inability of the Mexican railways to handle any more—but why not face the facts and slow it down still further by permitting short-term contract renewals where acceptable to the individual Mexicans?

Bread Over the Waters

Supplying food to the war-indigent of Europe is a gargantuan job and one with which the railways of this country are intimately connected. It concerns the shippers of the country as well, particularly those who process food products or who are concerned with the handling of wheat. The shippers advisory boards have had a remarkable record during the many years of their existence for forecasting accurately in advance the carloadings for future periods, but this record is getting more and more difficult to maintain because the behavior of the federal Commodity Credit Corporation is unpredictable in its estimates of the amount of foodstuffs to be shipped abroad. It forecasts and reforecasts in a bewildering way that makes it difficult for the commodity committee chairman of the advisory boards to follow it and thus accurately to predict carloading trends. In reporting to their boards, the committee chairmen now produce carloading estimates that are full of "ifs" and "buts," instead of the customarily accurate reports in which they have averaged more than 90 per cent correct for two decades.

This situation is unfortunate at this time when the box car situation continues persistently tight. This is particularly true with respect to the higher grade box cars, such as those which are used for food loading; and there continue to be deficiencies in this type of high-class equipment. Such deficiencies will continue until the new box cars now on order are delivered and until man-power is available on the rip tracks in sufficient quantity to keep cars in good repair.

Meanwhile, box car loadings are averaging more than 375,000 cars per week, which is considerably more than the average loadings for the first two weeks of August, 1945, during war-time. Also, to a great degree, shippers have abandoned the seven-day week for car loading and unloading, which extends the turn-around time by an average of nearly two days with a supply of serviceable box cars of only 712,679. These loadings are not simply of any sort of box cars, the majority being loadings of commodities requiring high-class cars which are particularly short.

The fact that high-class cars are demanded is indicated by the character of loading. Grain and grain products cause the heaviest demand for box cars; in second place are cars required for the movement of foodstuffs for export; and there is a definite demand for further cars to handle the substantial volume of ammunition returning from the battlefronts through the various Atlantic and Pacific ports.

All of these commodities require box cars that are in first-class shape. In addition, shippers are growing

more critical of the condition of box cars supplied to them. The situation is producing spot shortages of box cars in various sections of the country, and the transportation and car repair men should not be left to struggle with the problem alone. There is still much need for executive attention to car supply and demand problems.

The Honeymoon Is Over

In addressing the Southeastern Shippers Board recently, Edward Lacey, executive secretary of the National Industrial Traffic League, said: "Shippers are entitled to and are paying for much better service than they are getting from the railways." He decried the alleged attitude of "too many railway officers" that loads should be built to suit cars, instead of cars to suit loads, and said: "Transportation must serve industry—not industry serve transportation." These remarks were tempered by praise for the railways' performance in wartime. Alonzo Bennett of Memphis, new president of the N. I. T. League, endorsed Mr. Lacey's remarks.

Entirely apart from the fact that the League has as members most of the railways' large customers, the opinions of the leaders of that body are entitled to serious consideration by railway officers, in view of the splendid co-operation of the League with the railways during the war. Moreover, whether the general attitude of shippers is right or wrong, Mr. Lacey did state it correctly when he said they are duly appreciative of what the railways did during the war, but that they are now asking, "Don't you know there's a peace on?" And many railway executive officers agree with them that the time has come to improve freight service.

In support of this, the studies of the traffic sub-committee of the A. A. R. research project may be cited. Several months before the war ended, this sub-committee started finding out what the buyers of freight transportation want in the way of post-war rail service. Despite man-power and material shortages, which have continued to plague the railways since the war ended, new and faster freight schedules have been announced. These show which way the wind blows.

Furthermore, the railways have not overlooked fitting the car to the load. The freight car design sub-committee of the A. A. R. research project began collecting data from shippers as early as July, 1944, as to the type of car they desired for their post-war products. There was some surprise among shippers that the railways should ask their advice as to freight car design, but they co-operated by giving it.

Thus, Mr. Lacey's admonition, while pertinent and timely, has been anticipated by the railways. Neither the N. I. T. League nor the shippers' boards desire to disturb the present cooperative relations with the railways. They expect to continue to co-operate, but they do want faster and better l.c.l. handling; less delay of carload shipments in terminals and in interchange generally; faster schedules on long distance shipments; and a return to an improvement in freight service, tailored to their needs, which they were beginning to get increasingly in the years immediately prior to the war. These things are exactly what the railways are planning to give them.

Railroads Heavy Buyers in Shop Equipment Market

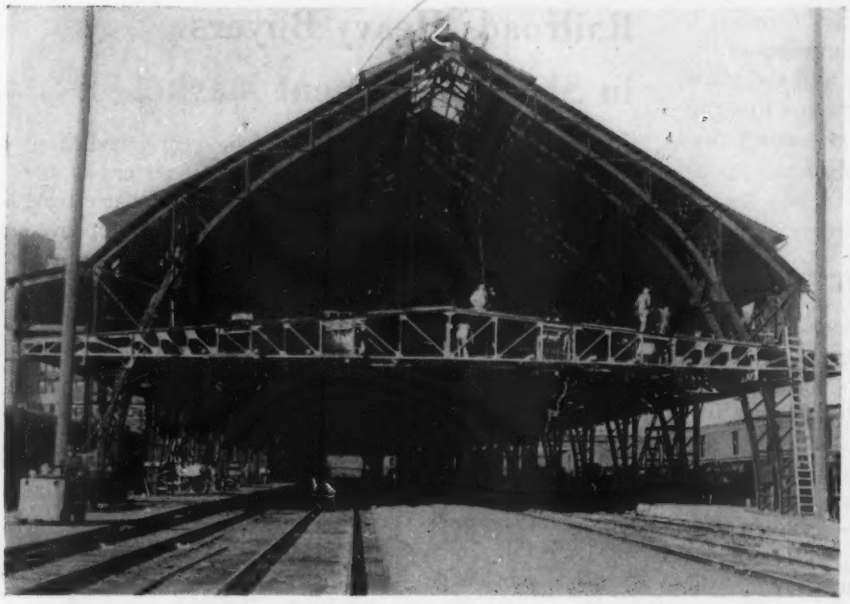
Reports that are coming in at the year's end from railroads representing more than three-quarters of the route-mileage of the United States indicate that during 1945 the roads have taken advantage of their improved financial position and the relative freedom of purchasing restrictions to replace substantial portions of obsolete and worn-out machine tools and shop equipment. The dollar value is not a matter of record at this time but, if the number of units of the various types of equipment are any indication, 1945 was a heavier buying year than 1944 and certainly one of the heaviest years since pre-depression days.

A glance at the lists of purchases for an industry as big as the railroads is always an interesting occupation, for it is amazing what a wide variety of products a railroad must have to keep its many functions in operation. The items required in the average shop and enginehouse range all the way from a single drill or pin, costing a few cents, to a machine tool that may cost 30 or 40 thousand dollars. These purchasing lists are also a most accurate reflection of the changes that are taking place in the running of a railroad.

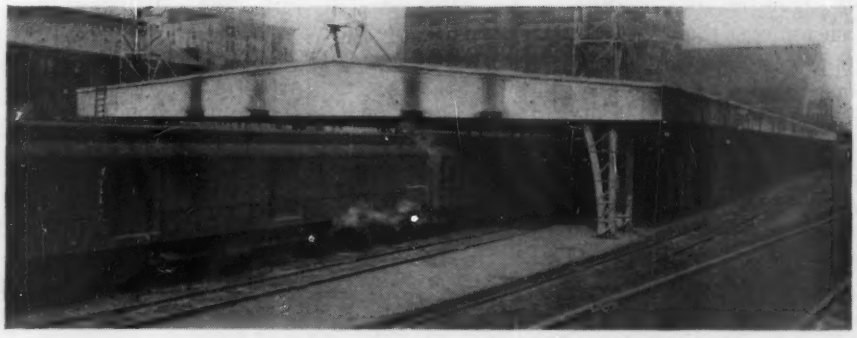
The use, by the railroads, of the many hundreds of Diesel-electric locomotives has not only been the occasion for the construction of many new shop and terminal facilities for maintaining this type of power but has brought into the railroad market many new types of devices and products that are required for the inspection, servicing and repair of the internal combustion engines, and the electrical equipment new to the many roads formerly operating only steam power.

There has also been a feeling that the introduction of Diesel power would eliminate the necessity of maintaining the facilities used for steam locomotives, but a glance at the purchases of shop equipment and machine tool items for 1944 and 1945 is the best of evidence that most roads feel that the steam locomotive is going to be an important part of their motive power inventory for many years to come. Not only is the buying for shop equipment used specifically for steam locomotive repairs heavy in volume but the character of the needs of the roads is an indication that the day is gone when tolerances of the "two-foot-rule" variety can be accepted around a railroad shop. The modern locomotive, of whatever type, is a precision machine and the tools used in its maintenance must be capable of extreme accuracy.

It is gratifying to see, after the seeming indifference of many years had resulted in the gradual decline in the efficiency of the railroad shop, and particularly of machine shop operation, that the roads are finally taking the opportunity to bring their plants up to date. As has been pointed out many times in the past, the expense of locomotive repairs still remains the largest single item of railway operating expense and if the facilities with which motive power is maintained are obsolete this major expense item cannot help but increase at a time when the roads, in the years to come, are to be faced with the stiffest competition in their history. Only efficient motive power and modern maintenance facilities can minimize this expense.



At Chicago, All of the New Roof Steelwork Was Erected Before Any of the Old Roof Framework Was Removed



Looking North at the New Train Shed at Chicago, Just After It Was Completed

I. C. Renovates Two Old Train Sheds

Remodels high arched structures at Chicago and New Orleans, La., replacing them with a modern low type of construction, without interfering with station operations

BECAUSE of difficulty encountered in maintaining the steel superstructures of its old high passenger train sheds at Chicago and New Orleans, La., and in order to modernize these passenger facilities, the Illinois Central recently rebuilt the structures, transforming them into sheds of modern design, with low, flat roofs. At Chicago the new shed is continuous over all tracks and platforms, except for smoke slots, or ducts, directly over the tracks; while at New Orleans the new shed is generally of the platform canopy type, affording protection to the platform areas alone.

Features of the reconstructed shed at Chicago are the shallow, long-span roof trusses employed, which precluded the use of more than the two lines of columns used in the old shed; and the plan of erection of the new shed and the removal of the old structure, which permitted the work to be done without interfering with the normal use of the track and platform areas. At New Orleans the most significant feature of the work was the rebuilding of the shed from second-hand steel. Of interest also as regards both sheds is the fact that each, of greatly improved appearance, provides the same platform coverage as the structure it replaces, and, in addition, utilizes the lower portions of the old arch columns to support the new roof.

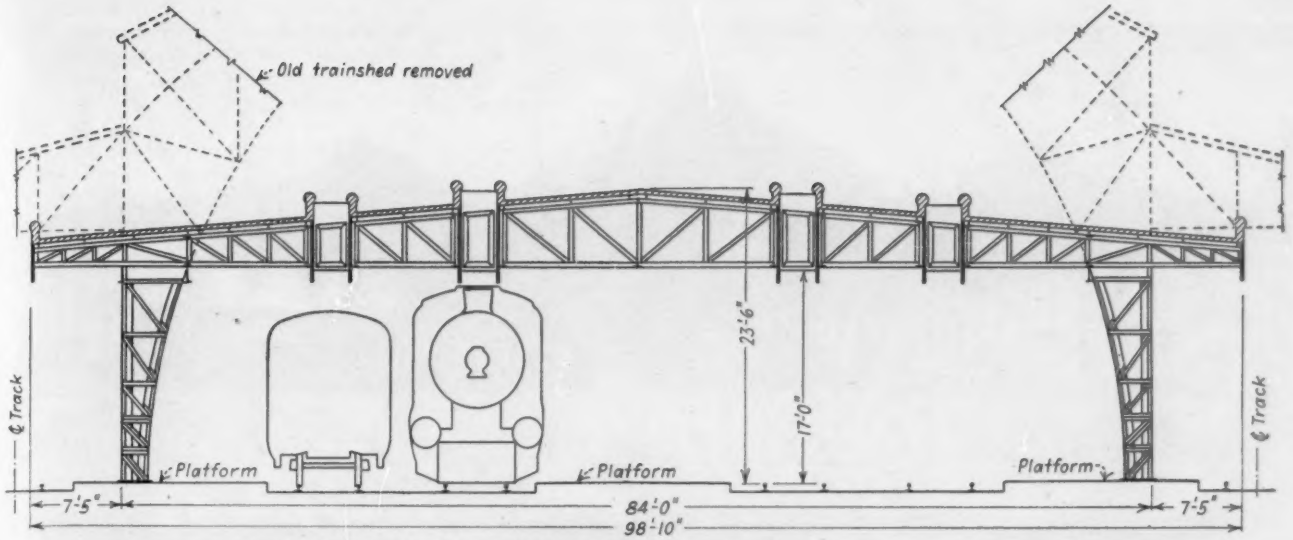
Prominent Landmark

Removal of the old train shed at Chicago, at the road's principal passenger station in that city, marks the passing of one of the prominent landmarks of the city's lakefront skyline. Erected in 1893, just south of Twelfth street, now Roosevelt road, the structure had an overall roof spread of 140 ft., was 610 ft. long, and rose to a maximum height of 62.5 ft. above top of rail.

The old train shed was a notable structure in itself. Built in a generally north and south direction, it consisted primarily of huge steel arch trusses with a span of 84 ft., which were spaced alternately 10 ft. and 40 ft. apart and originally covered with large corrugated iron sheets. These sheets were subsequently replaced with a roof deck of wood sheathing covered with a prepared roofing material.

Constituting the main portion of the shed, the arched section sheltered two pairs of tracks on 38-ft. centers, separated by a wide, low-level platform, and, in addition, covered the inner halves of flanking platforms which served the outer tracks of each pair. Outside of the arched section on both sides, short flat-pitched sections of roof, supported on steel brackets connected to the arch trusses, afforded protection to the outer halves of the outside platforms, which, in each case, served a track flanking the side of the train shed. Thus, the train shed as a whole extended continuously over three platforms and four tracks, affording protection in addition to loading and unloading operations on two additional outside tracks, and with roof-supporting steelwork in only the centers of the two outer platforms. When the shed was built a large number of skylight panels were provided in the roof to permit additional daylighting, but these were subsequently removed and the openings covered with corrugated iron sheets.

When it became expedient to replace the old train shed it was decided to remove most of the overhead steelwork, reduce its height approximately two-thirds, and provide a low-pitched roof, continuous over the entire area, except for smoke slots over the tracks to permit the escape of locomotive stack smoke and gases. In addition, because the steelwork in the lower parts of the old



Cross Section of the New Shed at Chicago, Showing General Features of Design

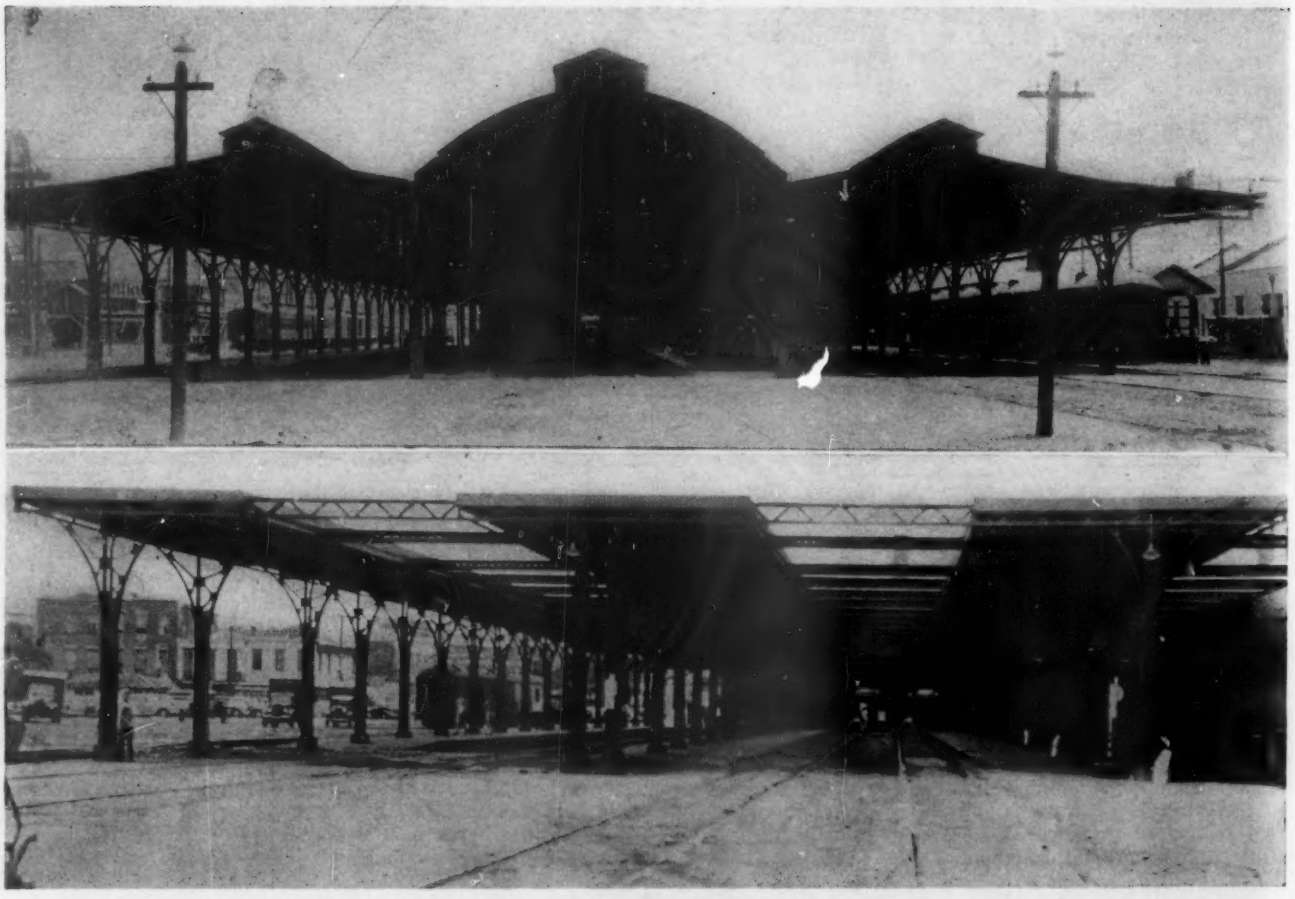
arches had not been affected by locomotive gases, it was decided to retain them in place as columns for the new shed roof.

With these considerations in mind, a train shed was designed and built which has a maximum height of only 23 ft. 6 in. above top of rail, and which covers the same area as the original shed, without the addition of any columns. Another feature of the shed as redesigned is that it is fireproof throughout.

The rebuilt train shed consists of a framework of shallow steel transverse trusses and a system of longitudinal interconnecting trusses and purlins, supporting a relatively flat deck constructed of corrugated Transite and overlaid with two layers of ½-in. gypsum board and 4-ply composition roofing. This construction gives a general overhead clearance throughout the shed of 17 ft. 3 in., except directly over the tracks, where vertical aprons along the sides of the smoke slots reduce the clearance to 16 ft. 1½ in. On the south end of the structure, three floodlight towers were erected on top of the shed to aid trainmen and others working at night in the area south of the station.

The flat transverse trusses of the new shed roof are supported on channel-section seats welded to the old arch columns 17 ft. 3 in. above top of rail, and the old columns were cut off directly above this point. Of incidental interest is the fact

A Birdseye View of the Chicago Train Shed, Showing the Break in the Roof Construction Where the Roosevelt Road Street Car Tracks Cut Through the Structure



Above—The Old Train Shed at New Orleans, La. Below—The New Shed, Incorporating the Columns of the Old

that these trusses were designed to act as struts to hold the old arch legs apart when the upper parts of the arches were cut during the removal of the old steel. The longitudinal interconnecting trusses of the roof, forming the smoke slots and supporting the roof at these as well as other points, are light, built-up members, and the purlins, consisting of channels, rest directly on these trusses.

To give some measure of protection to the steelwork forming the smoke slots and to prevent smoke from blowing back beneath the shed roof, both sides of the smoke slots were faced with corrugated Transite aprons, these aprons in all cases extending down to a point 13½ in. below low steel. Furthermore, at all places where the main roof trusses cross the smoke slots the exposed metal was encased in a protective coating of lightweight concrete.

In addition, to give the shed a finished appearance, facia boards of Transite were applied to both ends of the shed and along both sides, carried down like the slot aprons to a point 13½ in. below the steelwork.

One of the problems encountered in the reconstruction of the shed was that of draining the roof areas across the openings over the tracks. To solve this, gutters were formed in the tops of the concrete encasements of the transverse trusses at the smoke slots which, combined with the pitch of the roof areas, carry the water across the openings to downspouts located adjacent to the old arch columns.

The new roof areas were flashed along both sides of the smoke slots and along the extreme outside edges of the shed by carrying the four-ply composition roofing upward against wood furring in the form of a parapet. The tops of all such parapets are covered with circular Transite caps.

At one point in the length of the shed the street car tracks of Roosevelt road cross the structure on a steel viaduct, which intersects the top of the roof. Here, the main roof is broken entirely across the structure, but it is continued beneath the viaduct in the form of a continuous roof constructed of corrugated asbestos-protected metal sheets, which is suspended from the girders of the viaduct. Fortunately, the viaduct was high enough to permit the construction of this auxiliary roof beneath it and still maintain an underclearance in excess of 16 ft.

Method of Erection

By using the legs of the old arch trusses to support the new roof trusses, it was possible to erect the new shed and to dismantle the old structure without disturbing normal operations on the station tracks and platforms. Construction was started at the south end of the old shed because this offered the most advantages, including a spare track along the west side, on which new material could be brought in cars and stored pending its installation, and where the old material could be loaded out directly into cars for removal. All new steel used in the reconstruction of the shed was shipped to the road's Eighteenth street yard, where it was assembled and then shipped on flat cars to the erection site as needed.

The actual rebuilding of the train shed was relatively simple, consisting essentially of erecting the pre-assembled roof trusses on the seats welded to the old arch columns, setting the intermediate steel, and then building the roof deck. As a general rule it was possible to erect the steelwork for four or five panels of roof during one shift. Following the placing of the steelwork, construction of the deck was started, beginning again at the south end of the shed. This work consisted chiefly of fastening the Transite sheets to the purlins and trusses, overlaying them with gypsum board and composition roofing, and then completing the flashing operations.

Removal of the old shed was also begun at the south end of the structure, and, after the removal of the roof deck, consisted of burning the steel arch trusses into pieces that could be handled readily by a hand derrick mounted on top of the old shed, loading them into gondola cars for removal. As this work progressed, the derrick was moved along the top of the old structure to what-

ever point desired. A total of 710 tons of steel was released from the old shed and sold as scrap, while a total of 394 tons of new steel was used in the construction of the rebuilt shed.

Another factor in the rebuilding of the shed without interfering with platform and track use was the plan adopted for performing the work. Under this plan, all of the new steel was erected and temporarily bolted by a "swing shift" crew, working from midnight to 8 a. m., leaving the final jointing up operations for the daytime forces. This plan of erection got the heavy work out of the way during hours of least traffic on both the tracks and platforms, and, at the same time, permitted erection to continue with maximum speed. The remainder of the work, including the placing of the new roof deck and the removal of the old shed steel, was also done during the daytime. The entire job was handled under contract by the Ellington Miller Company, general contractors, Chicago.

Train Shed at New Orleans

In replacing the old train shed at New Orleans with a remodeled structure, employing salvaged, secondhand steel in conjunction with a modern design, the Illinois Central demonstrated again what can be often done in rebuilding a structure when new material is not available, without sacrificing appearance.

Constructed in 1892, the old shed at this point was located directly back of the station building and extended in a generally north and south direction. In general, the shed, 435 ft. long, had a triple-arch roof supported on four lines of columns, with bracketed sections extending out on each side, affording protection to an area 148 ft. wide.

All of the main roof supports were steel trusses, the roof deck throughout consisting of wood sheeting covered with prepared roofing and corrugated iron sheets. Within the shed area lay a group of six station tracks, separated into pairs and flanked on each side by wide low-level concrete platforms—the outside platform, in each case, also serving a covered adjacent outside track. In this layout of shed, tracks and platforms, which involved a center bay 41 ft. 1 in. wide, and flanking bays, each 35 ft. 11 in. wide, the lines of roof columns extended continuously down through the centers of the four platforms.

While the old shed superstructure was entirely adequate in design when built, it became evident in 1943 that steps should be taken either to replace major portions of the superstructure or to build an entirely new shed. Following a number of studies, it was decided that the only practical solution would be to rebuild the old structure. However, with the country at the time in the midst of war, it was found that new steel could not be obtained from the War Production Board for the project, and that secondhand steel would have to be employed throughout.

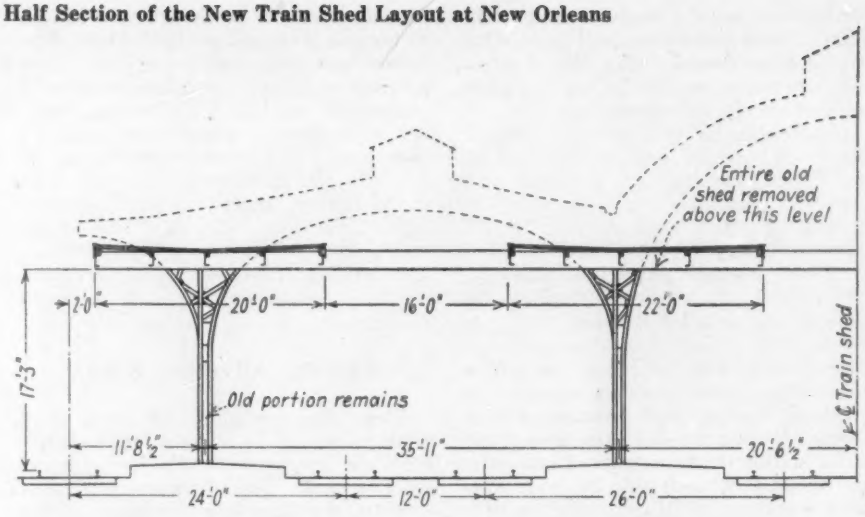
Factors Affecting Plans

Plans for rebuilding the train shed were influenced by several factors other than the requirement that secondhand steel be used. One of these was a decision to retain the lower portions of the arch-supporting columns and to use them to support the new roof framework. Another was the necessity for performing the work with the least interference with station operations.

With these considerations in mind, a platform-type of train shed was designed, based on the use of secondhand steel salvaged from a dismantled catenary sys-

A Skeleton View of the New Roof Framework at New Orleans. Note the Old Arch Columns Used for Supports

Half Section of the New Train Shed Layout at New Orleans



tem formerly used on the road's freight line in the Chicago suburban territory. The shed, with an underclearance throughout of 17 ft. 3 in. from top of rail, and extending only over the platforms, is not pretentious, but it is neat in appearance and meets adequately the needs of the station.

The rebuilt shed provides 421 ft. of cover over each of the four station platforms, and, as planned, uses the lower portions of the old arch columns to support the roof framework, composed of light-weight, transverse truss and built-up girders, interconnected with light longitudinal purlins. The roof covering over each platform consists of 2-in. wood sheeting overlaid with a tar and gravel top surface.

The girders comprising the main transverse members of the roof framework are continuous across the full width of the shed area and are welded to each of the old arch columns. The interconnecting purlins are composed of an assortment of channels and of built-up sections consisting of two angles laced together, and have welded connections to the girders. Beveled wood risers mounted on the tops of the purlins under the roof provide a pitch to the roof and for fastening the wood deck in place.

It was necessary to extend the main girder members across the full width of the shed in order to give lateral support to the old columns, retained in service, which were not self-sustaining against wind in themselves. The roof girders were erected in sections between adjacent column supports, and were later spliced together over the supports. Downspouts located adjacent to the old arch columns carry off the roof water.

Erected in Three Units

In contrast with the construction of the new train shed at Chicago, the structure at New Orleans was erected by units, involving separately the three bays comprising the old shed. Starting with the bay on the west side, the general procedure was to dismantle the old steelwork, erect all of the new steel, and then move to the next bay and repeat the operations. In dismantling a section of the shed over a bay, work was begun at the end away from the station building, and consisted of removing the steel down to the tops of the old arch columns by burning it into sections that could be loaded into gondola cars for ready disposal as scrap. A rail-mounted crane, operating on one of the two tracks in the bay where the work was being carried out, was used to load the old material as removed, and was later used to set the new steel in place. Following the erection of the roof framework, the wood deck and its tar and gravel covering were placed.

To help overcome the difficulties involved in rebuilding the train shed with secondhand material, and to permit changes to be made in construction details as necessary to correspond with field operations, the steel was cut and assembled at the erection site by the contractor. For this purpose, a small area near the shed was cleared and made available.

The entire job of rebuilding the shed required about four months. About 195 tons of secondhand steel were used in the new construction, and approximately 440 tons of steel were salvaged in the removal of the old structure. The W. Horace Williams Company, New Orleans, was the contractor for both the dismantling and erecting work.

Both projects described in this article were carried out under the general direction of C. H. Mottier, vice-president and chief engineer of the Illinois Central System, with B. M. Murdoch, engineer of buildings for the system, in general charge of the preparation of plans and construction.

Recorder for Train Communication

An automatic film type recorder for making a record of messages passing over train communications systems was mentioned in the December 8, 1945 issue of the *Railway Age*, in an announcement of train communication tests being conducted on the Reading. The recorder utilizes a voice-actuated relay for starting the mechanism and embosses an acetate film that can be filed and replayed as required.

The 25-Watt Transmitter and Receiver in the Wayne Jct. Yardmaster's Office—The Recorder Unit Is in the Recessed Panel

The recording procedure is similar to that of the usual disc recorder, except that sound grooves are embossed in parallel lines on a 50-ft. film rather than a disc. The film itself is of non-combustible cellulose acetate, and having no emulsion does not deteriorate with age nor require any processing. Thus the film can be played back immediately after it is recorded.

The film records a total of 115 parallel sound tracks the full length of the 50-ft. strip which is spliced to form one continuous loop, providing long recording time. The voice-actuated relay feature, which automatically starts and stops the machine, further extends the recording time to many hours and even days of intermittent recording on the one film.

Through a switching mechanism, the recording and playback needles on the machine automatically move across the film upon completion of each sound track. As the track is completed, the tracking indicator moves ahead one number, indexing the track. This index makes it possible to locate any of the 115 sound tracks on the film should it be desired to play back any particular portion.

Known as the Recordgraph, the recorder unit is manufactured by Frederick Hart & Co., Inc., New York.

German Condensing Locomotive

Condensing of exhaust steam without creating a vacuum, enables locomotive to run at least 1,000 kilometers, or 660 miles, before taking water

IN 1942, the German Government ordered 240 condensing locomotives of Henschel and Sons, Kassel, Germany. Prior to that time Henschel had delivered seven condensing locomotives to the Argentine Government Railway, one in 1933 and six in 1936, and one to the Iraq National Railway in 1939. The Union of Soviet Socialist Republics received an order of Henschel condensing locomotives between 1933 and 1936 and since 1936 the U. S. S. R. built about 2,000 condensing locomotives which have performed satisfactorily, this type of locomotive being particularly suitable in Siberia and the Far East where difficulty is encountered in obtaining water during the winter season. By reclaiming the exhaust steam, the locomotives make runs of more than 1,000 kilometers, or 660 miles, without taking water.

In the Henschel condensing locomotive, the exhaust steam from the two cylinders drives a draft-fan turbine in the smokebox and then flows through a 12-in. pipe to the tender, where it operates an air-fan turbine. This turbine powers three fans for circulating cooling air through two radiators that condense the exhaust steam from the air-fan turbine. The condensate flows into collecting chambers, from which it is forced into the boiler by feedwater pumps. In condensing, the pressure is not less than atmospheric.

Draft Arrangement

As the exhaust steam is not discharged up the stack to create the draft required for combustion, a suction fan, powered by a steam turbine, is located in the center of the smokebox for that purpose. The fan casing is welded to the smokebox with its outlet in the stack. Both the fan and the turbine are mounted on one shaft supported by roller bearings at the sides of the smokebox. The fan is protected from cinders and coal particles by deflector plates located at the sides of the intake. Grids in the steam pipes from the cylinders remove particles that might be in the exhaust steam and damage the turbine. The draft is proportional to the steam consumption because the turbine is driven by the exhaust steam from the cylinders. However, some manual regulation of the draft is obtained by means of a by-pass around the turbine, the by-pass valve being controlled from the cab. When the locomotive is idle or running with a drifting throttle, the turbine is driven by steam from the boiler which is admitted through a valve in the cab. For engine-house use the turbine steam line has a connection for receiving steam from an outside source.

When the locomotive is operating at maximum capacity, the single-stage turbine delivers 35 hp. at 3,000 r.p.m. with an intake pressure of 24.5 lb. per sq. in. and an exhaust pressure of 22.8 lb. per sq. in. with a closed by-pass valve. At this turbine output the fan expels 1,102,500 cu. ft. of gases through the stack.

If the turbine is damaged, an emergency blower can be used and the locomotive can be run non-condensing with the cylinders exhausting directly up the stack through operation of a lever-controlled valve in the cylinder exhaust line.

From the draft-fan turbine the exhaust steam, increased by the steam from one safety valve and the electric generator, flows through a 12-in. insulated pipe along the left side of the locomotive to the tender. The other safety valve opens to the atmosphere and is set to operate at 5.5 lb. per sq. in. higher pressure than the one piped into the exhaust steam line to the tender. A plate-type separator removes the oil from all the steam before it reaches the tender. The exhaust steam pipe has four expansion sections on the locomotive and one on the tender, each section being of the single-bellow type. The connection between the locomotive and tender is made through double-ball connectors and a sliding pipe.

Cooling-Air Turbine

The exhaust steam drives a one-stage turbine, located on a casting between the coal space and the condenser compartment in the tender, which rotates three fans that draw the cooling air through two condenser radiators. The turbine shaft rotates on three plain bearings, one of which is designed to take the lateral thrust. Power is transmitted to the fans through a pinion on the turbine shaft meshing with a gear (1:6.9 ratio) on a transmission shaft that is connected through flexible couplings to the fan gearing.

Steam is admitted to the turbine at a pressure of 22 lb. per sq. in. and is exhausted at 14.5 lb. per sq. in. if the locomotive is working at full load with all by-passes closed. Under these conditions the turbine delivers about 200 hp. at a maximum speed of 7,300 r.p.m. and rotates the transmission shaft at 1,060 r.p.m.

When the outside air temperature is low the turbine output and the air flow through the radiators is decreased in order to maintain the condenser temperature at 194 deg. F., the temperature being registered on a thermometer dial in the cab. This regulation is controlled from the cab and is obtained through two spring valves which operate to by-pass part of the steam directly to the radiators. The two spring valves protect the turbine from excessive speed by operating automatically and by-passing steam directly to the radiators if the

Translation and data for this article furnished by Headquarters, 708th Railway Grand Division, Military Railway Service.

difference between the intake and exhaust pressures exceeds 11.4 lb. per sq. in.

During the winter most of the steam has to by-pass the turbine and the two valves do not have sufficient capacity to handle the volume of steam. For this reason, there is a third valve for by-passing steam to the right-hand radiators, this valve always being closed during summer weather. A short branch pipe leading to the atmosphere is connected to the exhaust steam pipe for relieving the steam pressure if anything happens to the turbine or radiators. Normally, this branch pipe is closed by a cover bolted to the pipe opening. Steam may be admitted to the air-fan turbine directly from the boiler for starting the turbine slowly while regulating the oil pressure before the turbine runs at full load. In very warm weather, boiler steam is used to increase the turbine horsepower.

An oil pump geared to the turbine shaft forces lubricating oil from a 16-gal. storage tank through a filter and two cooling coils to the turbine bearings and the fan gears. The storage tank has a drain valve and an oil filling pipe which can be reached from the gangway on the right side of the tender through a flap at the rear of the turbine compartment. The cooling coils are in separate compartments ventilated by air flowing through holes to the fan compartment. These coils can be by-passed in cold weather and the oil flow can be directed through a heating coil by means of a three-way valve.

Turbine - control instruments are mounted on an illuminated board at the tender side of the cab. They include a turbine-speed tachometer, an oil-pressure gauge, and an oil-temperature gauge. The gangway in the tender has an electrical receptacle for plugging in an electric light.

Condenser Radiators

Cooling air is drawn through the radiators by three 88-in. diameter fans, with seven-blade wheels built of welded steel plate. The transmission shaft from the turbine is built in three sections connected by flexible couplings, one on each side of the bevel-gear casing. The fan shaft is supported in roller and ball bearings, the latter absorbing lateral thrust, and turns normally at 1,000 r.p.m. Fan bearings are lubricated by means of an oil pump driven by a cam on the transmission shaft.

Steam exhausted from the air-fan turbine is divided into two equal parts and flows to the right- and left-hand radiators. Each radiator has six sections composed of elliptical steel pipes fitted with cooling fins of 1/16-in. plate spaced ⅛-in. apart. The pipes are assembled diagonally, four deep and 56 wide, or a total of 224 pipes per radiator section. All radiator surfaces are galvanized. Shutters, controlled by levers located on each side of the tender coal gates, can shut off or vary the air flow through the radiators and prevent the radiators from freezing in the winter. The 12 radiator sections have an outside surface of 328 sq. ft. and an effective cooling surface of 29,547 sq. ft.

Steam condensed to water in the radiators flows to a collecting chamber at the bottom of each radiator, then through filters that remove any remaining oil to a 475-gal. condensate tank in the bottom of the tender. This tank has a heating coil and the collecting pipes have air vents. The height of the water in the condensate tank registers on a gauge that can be seen from the cab and the condensate temperature is shown on a dial on the cab instrument board. A hand wheel on this panel controls the steam to the turbine-oil heater, the condensate-tank heater, and to the condensate water pipes.

To compensate for water losses the tender has a 4,200-gal. water space equipped with a heater coil and air vents. If necessary, an auxiliary water tank car can be coupled to the tender with water flowing to the tender through an insulated hose that may be heated in cold weather. Fresh water is introduced to the condensate water tank by operating a valve on the left side of the tender. The temperature of the fresh water is indicated on the cab instrument board and heating of this water is effected by opening a separate handwheel on the panel.

As the condensate is at a temperature of 197 deg. F. it cannot be fed into the boiler by injectors and two double-action feedwater pumps of 4,600 gal. per hr. capacity are used. To insure the flow of water at this high temperature to the feedwater pumps, and to eliminate steam pockets and irregular suction, two water-jet pumps deliver the water to the feedwater pump intakes. These jets receive water under pressure from the delivery side of the feedwater pumps and use this water to force the water from the condensate tank to the feedwater pumps under pressure. If the feedwater pumps are operated very slowly the boiler check valves do not open and the water flows through a by-pass line back to the jet pumps, this circulation protecting the pipe lines and the pumps in cold weather. The water-cylinder jacket of the feedwater pumps can be warmed with live steam, controlled from the cab, that flows through the bottom casting of the pump lubricator into the jacket and then to the atmosphere.

The cab is equipped with floor radiators heated by live steam from a three-valve manifold on the back head. Two of the valves control the steam to the cab radiators, while the third valve controls the heating of the oil pipes to the cylinders and piston valves. The steam lines for heating the oil are connected to compensating valves on the piston valves and cylinders and are used to warm the cylinders before running the locomotive.

General Dimensions and Weights of German 2-10-0 Type Condensing Locomotive

Railroad	German State Railways
Builder	Henschel & Sons
Type of locomotive	2-8-0
Road class	G56.15
Road numbers	52-1960
Date built	1944
Rated tractive force, engine, 85 per cent, lb.	50,000
Weights in working order, lb.:	
On drivers	179,200
On front truck	24,640
Total engine	203,840
Tender	168,000
Wheelbases, ft.-in.:	
Driving	21— 8
Engine, total	30— 2
Engine and tender, total	76— 0
Driving wheels, diameter outside tires, in.	55
Cylinders, number, diameter and stroke, in.	(2) 23½ x 26
Valve gear, type	Walschaerts
Boiler:	
Steam pressure, lb. per sq. in.	225
Fuel	Bituminous
Grate area, sq. ft.	42
Heating surfaces, sq. ft.:	
Firebox	171
Tubes	963
Flues	768
Evaporative, total	1,902
Superheating	686
Tender:	
Water capacity, gals.	4,200
Fuel capacity, tons	9

* * *

Santa Boards the B. & M. at Concord, N. H.

Traveling youngsters on all through trains stopping at Concord, N. H., during Christmas week, are presented with candy and cookies by the Concord Railroad Y. M. C. A. William E. Schatz, general secretary of the group does the honors.

How Industry Can Make Friends for Itself

First, industry's aim must be the public interest—then that fact must be made well known in strategic places

By ***HOLCOMBE PARKES***

Vice-President, Public Relations, Nat'l Association of Manufacturers

WHEN a business man is confronted with the necessity for devising a long-range program of activities he usually follows a procedural pattern that has been tested repeatedly by those who have made industrial history. First, he re-examines his present operations carefully. Then he surveys minutely the field into which his contemplated program may take him. Finally, he puts his problem through a time-tested laboratory process in which every element thereof is isolated, identified and studied. Armed with these results of his research he prepares a well-rounded, carefully-planned - in - advance, integrated program, whatever its objective may be. Devising a public relations program is no different, fundamentally, from devising any other kind of business program.

Passive Good Will Valueless

The function of industrial public relations activities being to promote good will toward industry, a distinction should be made between:

Good will of the *passive* variety, which isn't worth a plugged nickel; and

Good will of the *active* variety, without which there is little chance that our cherished way of life can hold out for long against the continued, vicious, well-organized attacks of imported ideologies.

The goal, then, should be two-fold: to stimulate action by industrial management; and to obtain active good will from the American people and all possible segments thereof.

Internally, this means the education and inspiration of management to the point where the resulting policies and actions of industry will be automatically and consistently identified with the best interests of the country and all its citizenry.

Externally, this means the publicizing of such enlightened performance by industry in such a way as to insure that it produces the fullest possible measure of *active* good will, expressed in terms of economic and political support.

Some will say that such a public relations program should not go beyond the attempt to "sell industry's good apples" and create public good will without accepting responsibility for the character of this good will. Perhaps a few will observe that such a program is an open invitation to make the public relations program the "whipping boy" if and when things go wrong.

I would subscribe to some of these views were it not for my belief that public relations has come of age as a useful tool of management. It is no longer a thing compounded of press agentry, hoopla, and mysterious contacts with "the right people." It has outgrown these marks of adolescence. It must accept its maturity and, from here on, give a fair day's work for a fair day's wage.

Our real goal, therefore, must be to stir people—executives, business men, leaders in all walks of life, the big people and the little people of this nation—into action. It should be explained, moreover, that all public relations work of the National Association of Manufacturers will hereafter be built on the foundation of extensive and careful opinion research.

The great debate of our time is on the issue of collectivism vs. individualism, or how far the state should go in managing the life and affairs of the citizenry. This issue represents the principal cleavage between the Republicans and Democrats, between upper and lower income groups, union members and non-members, and people in large and small towns. When I say this I am not relying upon my personal appraisal of the situation but on that of Dr. Claude Robinson of the Opinion Research Corporation.

The collectivism vs. individualism cleavage represents the primary public relations problem of industry, since public acceptance of collectivist philosophies will spell the end of competitive enterprise as we now know it. In the battle of ideas in Europe, the liberals have lost (temporarily at least) the fight to the collectivists. England is the latest casualty. Here in the United States the competitive enterprise idea is still going strong.

What C. I. O.'s Goal Is

But competitive enterprise has been under heavy attack over the past decade, and this attack is scheduled to continue with renewed vigor over the next few years. New Deal politicians spearheaded the collectivist drive for the first ten years; this task is now being taken over by the C. I. O.—with no small degree of help from the present administration. The central idea of the C. I. O. campaign is government planning, with industry controlled by boards made up of representatives of management, labor and government. This proposition is advanced by all manner of propaganda by the Political Action Committee and is the theme of individual C. I. O. campaigns—notably in the steel, automobile and agricultural machinery industries.

The tactic is to seize on every passing event and make it add up in the public's mind to the desirability of control of industry by a management-labor-government planning board. No matter what is done, propaganda tactics require the collectivist to say that industry should have done it differently. An example is a recent New York Times headline: "Auto Union Says 10,000,000 Cars a Year, Not 6,000,000, Should be the Goal of Industry."

It should not be supposed that a post-war boom will solve the public relations problem of industry. The C. I. O., as indicated in Walter Reuther's statement, "The Challenge of Peace," recognizes a period of post-war prosperity. But he forecasts a decline to follow in "the period of curtailing private production." And he says, "This will be the real test. It is in this period particularly that government will have to step in."

Getting Set for a Depression

In other words, people advocating collectivist philosophies are prepared to work hard during the post-war period to prepare the public's mind for the advance of statism on the next down-phase of the economic cycle. Management also has the opportunity of working hard during the post-war period to reaffirm people's faith in competitive enterprise so that they will *not* turn to statist "solutions" in the next depression. This is the backdrop of industry's long term public relations problem.

The next step in this proven way to arrive at a sound public relations program is, in my opinion, to define our problem in the clearest terms possible; and again we have turned to opinion research for guidance. This is what we come up with:

The public relations problem of industry is essentially a marketing problem. Competing leaderships are offering their wares to the customers in the marketplace. These competing leaderships are industrial management, labor leaders and politicians. When management's policies toward the community do not satisfy the public, the tendency is to go to the seat of government and ask for a law or to organize a labor union and force changes in standards through union controls.

As with any marketing problem, the supplier must first examine the package he offers, and secondly, examine the methods by which he advertises and sells that package. In other words, loss of customers in competition may be due to

This article is adapted from an address at the recent N. A. M. annual meeting. It will be recalled that, until recently, the speaker was assistant to president of the Southern Railway.

a need to change the product or to misinformation on the part of the public which can be corrected by advertising and selling efforts.

From the studies of the "Public Opinion Index for Industry" we know that there is great public respect for the physical achievements of American industry. But the public has two basic criticisms of industrial leadership, viz.:

a. People think that management tends to operate without a heart; that it "puts property rights above human rights"; that it puts profits first and human considerations second;

b. The second great criticism is that companies make too much profit. People say companies don't share their gains with workers; that it is necessary to force companies to disgorge; that the way to get higher standards of living is not to produce more in order to get more but to take away from someone who is thought to have wealth.

Whose Leadership Is Best?

Here, then, are our basic problems:

First, to convince the public, through identification of management's interests with those of the public, that management can, and will, bring more of the good things of life to more people than can, or will, any competing leaderships or philosophies;

Second, to convince the public that management's profits are *not* excessive and that labor's share in the returns from production are fair—and sure.

Having been dipping liberally into the great store of facts that have been gathered by opinion research in recent years, I want to repeat some of the salient points in a recent statement by Dr. Claude Robinson. He said:

"The principal flaw in industrial public relations in the past is that industry manages to get itself pictured as self-seeking; as protecting vested interests. It has somehow failed to establish in the public's mind that its motives are good. Yet we know that public confidence in good motives is a primary key to getting and keeping a following.

"The best proof of this is the Presidential career of Franklin D. Roosevelt. The secret of his hold over the voters was the public's belief that he was *trying* to do the right thing; that he was trying to help the masses.

"All collectivist propaganda is based on the same strategy. Collectivist leaders envisage bigger and better things for the people—social security, higher standards of living, better medical care, less household drudgery, crop insurance, unemployment insurance, old age insurance, 'ever normal granaries.' Meanwhile they advocate means for reaching these goals which most of us believe lead to tyranny, poverty and war.

"Time and again a squeeze-play has been worked on industry. The play operates this way: Collectivists talk about *ends* and propose *means* that industry thinks will destroy the ends. Industry people, being 'means-minded' (since industry must deal with means) criticize the means proposed by the collectivists. All of which confuses the public and makes them believe that industry is against the good ends.

"The basic strategy must be to appropriate the good ends and proclaim them by affirmation. Means should never be discussed by management until the argumentative ground has been cleared by making it evident that management is for the good ends.

"We are not suggesting here that management out-do the politicians and the union leaders in promising things that they can't deliver. But if management is to gain public acceptance, the people must believe that management is trying to reach the goals thought desirable by the public.

"This distinction between promises of achievement and promises of intention is a very important one. Management, taking responsibility for both its words and its deeds, backs away from irresponsible promises, but management can quite truthfully portray its desire to reach what the public thinks is the good life, for the very religion of industry is, or should be, liberty to compete and, by competing, produce more goods for more people at less cost.

"The moral of all this is that the public relations of management must be directed more to talk about the good life. The public relations of industry are obviously complex, but the criteria for any program boils down to a few simple concepts:

"Is the public relations maneuver proposed calculated to show that industry is working in the public's interest? Does it show that industry has a heart? Does it show that industry's 'social fee' for the service delivered is relatively small?

"If the people can be convinced that industry has a heart and that industry is sharing fairly with workers and the general public, we can be sure that industry's public relations battle will be won."

Where Balance of Power Lies

There is another element in this "marketing problem" that Dr. Robinson mentions—where are our best markets? That is to say, to what, if any, segments of the public should we try to sell our story? What kind of people will listen and what kind will tune us out? Who and where are our potential customers?

Using research findings now available, we can reasonably conclude that, if we hope to succeed in preserving free competitive enterprise, we must attract to our cause those segments of the whole public which today represent the balance of power in this country. They are: The youth of the land, including the 10 or 11 million men and women who have donned Uncle Sam's uniform in recent years; and, the great middle class of "white collar" workers who have become the real "forgotten men" of this day.

Public relations-wise these are the two great markets for the goods we must sell. Thus it seems to me that we have a four-point job to do:

1. It is necessary to identify industry with the "good symbols"; with the hopes and aspirations of people; with the national welfare and the common good. This means convincing the general public and many of the important segments thereof that what industry desires will bring more of the good things of life to more people than will any competing leadership or philosophy.

2. It is necessary to prove that industry "has a heart"; that it recognizes and respects "human rights" in all of its policies and operations.

3. It is necessary to demonstrate that the dollar which industry takes in is now, and wil continue to be, shared properly between workers, consumers, suppliers and owners.

4. It is necessary to defend promptly and effectively "the free enterprise system under which America has grown and prospered" and to oppose vigorously "all things which will impair that system."

Management Also a Target

The target for these points is, of course, the general public which eventually will decide which leaders and philosophies it prefers to follow into tomorrow. Within the general public there is, fortunately for us, a great segment which today holds the balance of power in regard to this decision; a segment composed of two parts—the nation's middle-class salaried workers and individual enterprisers, and the "younger generation."

Another segment of the public requiring special consideration is composed of industry's own "family"—employees, foremen, supervisory staff and officers—and the corresponding groups in other industries, including businessmen and workers in all phases of commercial activity. Still another segment is composed of farmers, including both those actively engaged in farming and the nation's small town population which is so closely related to agriculture. Finally, there are the opinion-moulding segments of the general public to which part of this program should be specifically directed — the editors, writers, cartoonists, movie-makers and radio commentators; the teachers and preachers of the country; the leaders of the women's clubs, business organizations and civic clubs; and the politicians (particularly those in Washington).

These are the external targets of this program. They are important—but the one *internal* target is of even greater importance because it will actually determine the character, size, price and attractiveness of the goods that industry will be trying to sell. This target is the management of industry itself.

It is for this latter reason that we are starting our detailed recommendations with projects and services which are directed solely at the association's members, the objective being "to further enlightened performance on the part of managers of manufacturing enterprises" and to inspire every industrial executive in the National Association of Manufacturers to become a crusading "missionary of free enterprise."

T.C. General Calls for Big Road Program

Says Army is working with Roads Administration for a highway system big enough to handle all rail traffic

BRIGADIER General Edward H. Lastayo, chief of the highway division of the office of the chief of transportation, U. S. Army, speaking in Miami on December 12, came out in favor of the development of a peace-time domestic highway system of sufficient magnitude to take over, in an emergency, all the traffic being handled by railroads.

In justification for such a costly program he contended that, in the event of another war, "the fixed installations of other types of carriers would become the immediate and almost certain targets for these new and highly accurate long-range weapons"; so the General wants to be prepared with a network of highways large enough to take over all the traffic moving by rail.

Wants Giant Roads Built Now

The General emphasized the necessity of building this enormous highway network now, in peace-time, so that, when the next war begins, no new construction will be necessary. Enlarging on this point, he said:

"We are working very closely with the distinguished public servant, Commissioner Thomas H. MacDonald of the United States Public Roads Administration. With his vast experience in the development of the federal aid system, coupled with our practical operating experience during the past war, we are in a position to accurately evaluate our highway requirements. We have adopted Commissioner MacDonald's objective as our own, namely, that at the time of any future emergency, we expect to have such a completely developed strategic highway network that no new construction, I repeat, *no new construction,* will be necessary to meet the military and industrial demands for highway transportation. There will exist only the need for adequate maintenance, and control of the use of these highways."

The General revealed this ambitious program for highway construction at a meeting of the International Association of Chiefs of Police, a force upon which he is relying heavily for assistance in traffic control, when the time comes that the highways are given the opportunity to take over the transportation functions of the destroyed railroads.

"We propose," he went on to say, "to experiment with and develop auxiliary equipment, particularly in the field of traffic control, which will make for the highest possible efficiency in the employment of motor transport under all conditions. I speak particularly of truck operation and control of traffic under blackout conditions—one of the great unsolved problems of the last emergency, during which we lost thousands of ton-miles every month because vehicles could not be operated or controlled efficiently when combat conditions resulted in the imposition of a security blackout.

"We are now in process of amending tables of organization and equipment and War Department doctrine as expressed in the various field manuals so that both will conform realistically to the actual necessities of highway transportation in a Theater of Operations.

"We propose to train thoroughly those officers and men of the regular army, the reserve establishment, and whatever citizen trainees Congress makes available to us, in the organization and operation of highway transportation, employing the most modern techniques and the best equipment. Great emphasis will be laid upon the control of movements, particularly on highways. Only by so doing can we properly discharge our solemn obligation for supplying such efficient transportation as will be necessary to support the Army in its greater obligation to maintain the peace through preparedness for war.

"But such preparedness is not alone the responsibility of the armed forces of the United States, for we are in the last analysis but an instrument of the people. Further, by the very nature of any future emergency which may develop, all of the nation will, of necessity, participate in the direct responsibility for the prosecution of that war and are therefore morally bound, in the interest of all that we as a people cherish, to participate in our program of preparedness."

The General based his conclusions on experience with the war in Europe, regarding which he made the following observations:

Trucks Not Big Enough

"The control of traffic and movements was one of the great problems of the war. This was true for several reasons. First, this, the greatest war of all time, required the movement and support of the largest army we have ever mobilized. Second, it was, with some notable exceptions, a war of large and unbelievably rapid movement. Third, in most areas, rail systems were so completely destroyed that all movement of troops and their support in the combat zones was by motor transport. Fourth, in most of the theaters of operation the highway network was extremely limited and of a relatively poor quality." Nevertheless, the General reassured his audience, "Highway transport never stagnated—one of the great accomplishments of the American Army in World War II."

The General criticized the size of trucks employed by the Army for the war in Europe. He believes they should have been much larger, since smaller trucks are "wasteful of man-power." He offered no figures, however, on the effect on man-power resources which would follow the diversion, for which he is planning, of all railroad traffic to the highways.

* * *

Winter Sports Train of the Aigle-Sépey-Diablerets Railway in the Vandois Alps, Switzerland

George F. Ashby to Head Union Pacific

William M. Jeffers will retire February 1, 1946, after nearly 56 years' service with same railway

WILLIAM M. JEFFERS will retire as president of the Union Pacific on February 1, 1946, shortly after his 70th birthday, and will be succeeded by George F. Ashby, now executive vice-president of that railway, who will have headquarters at Omaha, Neb. Mr. Jeffers will continue as a director of the company. The announcement was made by F. W. Charske, chairman of the executive committee of the U. P., in New York on December 20.

Mr. Jeffers was almost literally born on the Union Pacific at North Platte, Neb., on January 2, 1876, the son of a Union Pacific employee. He entered the service of the railway on June 1, 1890, at the age of 14, as an office boy, serving successively until 1895 as a clerk and telegrapher. In 1896 he was appointed a train dispatcher and received a further promotion to chief dispatcher in 1900. Between November, 1905, and February, 1915, he served as trainmaster and later as assistant superintendent of the Utah division and as superintendent of the Wyoming and Nebraska divisions. In November, 1915, Mr. Jeffers was named general superintendent, and seven months later he was advanced to the position of general manager.

William M. Jeffers

George F. Ashby

Subsequent Career

For three years during the period of federal control, Mr. Jeffers had the title of vice-president, returning to the position of general manager when the railways were returned to private management. On October 1, 1928, he was elected vice-president in charge of operation of the system, serving in that capacity until October 1, 1932, when he was elected to the new position of executive vice-president. On October 1, 1937, Mr. Jeffers was elected president of the system, succeeding the late Carl R. Gray, Sr. In the early days of World War II, Mr. Jeffers was appointed national rubber administrator by the late President Roosevelt, and, in a year, set up the program for providing synthetic rubber to meet the nation's war needs. For the past several months Mr. Jeffers has maintained headquarters in Los Angeles.

During his tenure as vice-president in charge of operation the Union Pacific established the remarkable record of handling more than 11,000 successive trains of perishables on time or ahead of time from Ogden, Utah, to Council Bluffs, Iowa. In the years during which he exercised an important influence in determining the policies of the railway, he made constructive contributions in bringing the Union Pacific to the forefront in matters of safety, as attested by the numerous awards and medals for safety which have been received by that railway. He was a leader, also, in the adoption of streamline passenger trains by the railways. His keen interest in passenger service is attested by the credit given him for various passenger service innovations such as the inauguration of the low-fare transcontinental "Challenger" tourist trains, and the low-cost dining car meals, registered nurse stewardesses, free porter service, free pillows and exclusive cars for women and children on the Challengers.

A Champion of Labor

Mr. Jeffers has borne justly the reputation of being not only one of the most progressive of railway managers, but also of being one of the best friends of labor unions among railway executives. Hence, a statement made by him just before announcement of his impending retirement is of unusual interest. This statement, as made to Merle S. Rukeyser and quoted by Mr. Rukeyser in the Hearst newspapers on December 19, was in part as follows:

"The nationwide labor situation threatens to destroy the initiative of industry, including the railroads under private management. I look upon it as being a serious threat to the continued existence of free enterprise in this country. It is primarily caused by a labor situation that seemingly has gotten pretty well out of hand."

Regarding the outlook for railroad earnings in 1946, Mr. Jeffers said that the prospective shrinkage in freight revenues would be greater than the decline in the physical volume of freight traffic carried. The explanation lies in the fact that under peace-time conditions different classes of freight, bearing different rates, will be transported than in war-time. As a result of this, he anticipates a decline in total net earnings, despite the continuing boom in passenger travel.

"It is my view," Mr. Jeffers said, "that the serious declines in revenues which the railroads are now experiencing will continue and that this will be reflected in losses in net income. The extent of this will, however, be dependent upon numerous other factors.

"I do not anticipate any serious decline in passenger travel for some time to come. In fact, it is my view that there is sufficient public desire to travel to consume all of the travel facilities, including rail, highway and air equipment, that will be available for some time. I do not predict early relaxation of regulations on accommodations for civilian travel.

"Union Pacific went into the war period with larger fleets of passenger carrying equipment than most railroads and would be comfortably situated under normal conditions as they prevailed before the war. It is, however, planning to make some additions thereto in the expectation of a heavier post-war demand for more of the modern streamlined types of equipment such as it developed before the war.

"With the exception of some novel changes in design of doubtful prac-

ticality in passenger carrying cars, we anticipate no drastic changes in post-war equipment over those developed in the period prior to the war, but we do anticipate a more rapid adoption of the newer styles and types of equipment."

Mr. Ashby's Career

Mr. Ashby is also a veteran of long service with the Union Pacific. He was born in Mt. Airy, N. C., on September 3, 1885, and entered railway service in January, 1906, in the purchasing department of the Atlantic Coast Line. Between July, 1906, and March, 1911, he served with the accounting department of the Seaboard Air Line. He entered the service of the Oregon-Washington Railroad & Navigation Company (now Union Pacific) in the engineering department in 1911, and was transferred to the executive department two years later, where he served for five years, being transferred to the operating department in 1921. In that year he was sent to Omaha as statistician in the office of the vice-president of operation of the Union Pacific, and in 1934, he was promoted to assistant to Mr. Jeffers who was then executive vice-president. When Mr. Jeffers was elected president in October, 1937, Mr. Ashby was further advanced to assistant to the president, and in August, 1941, was elected vice-president and assistant to the president. On December 1, 1944, Mr. Ashby was elected executive vice-president, in which capacity he is now serving.

In taking over the reins of the Union Pacific, Mr. Ashby is assuming management of a carrier which has been notable for the high standards of its physical properties, its efficient operation, its sound financing and the dividends paid its stockholders ever since its rehabilitation by the late E. H. Harriman. Dividends were paid even during the depression years despite the decline in operating revenue.

Because of its geographical location, the Union Pacific was in position to render the nation outstanding service in handling war-time transportation. With lines of its own from Kansas City and Council Bluffs, Iowa, on the one hand, to Los Angeles, Cal., Portland, Ore., and Puget Sound, on the other, and as a part of an important through route from Chicago to the Pacific Coast in connection with the Chicago & North Western and the Southern Pacific via Ogden, the Union Pacific was a through traffic artery of first importance. The effects of the war are graphically shown in the accompanying table which gives railway operating revenues, operating ratio and net railway operating income for the years 1939 to 1944, inclusive.

Union Pacific (Including leased lines)

Year	Railway Operating Revenues	Operating Ratio Per Cent	Net Railway Operating Income
1939	$164,253,371	71.7	$20,233,188
1940	168,164,258	71.9	23,358,960
1941	218,091,994	73.3	30 535,373
1942	353,064,543	62.0	61,024,720
1943	480,274,934	62.4	41,205,855
1944	506,590,966	62.1	36,526,015

A Hint of Old New Orleans Brought to Kansas City

For its widespread interest and appeal, and because the Kansas City Southern offers the only through service between Kansas City and the Southern port, New Orleans was chosen for the motif of the new passenger and ticket office of the K. C. S., in Kansas City, Mo. The courtyard (above) is a replica of that in the famous French quarter, and the carnival scene (below) suggests the traditional Mardi Gras. Century-old ornamental iron brought from New Orleans provides an authentic touch in the balcony (above), and to frame the wide plate glass window of the office. Murals, indirectly lighted, were painted by students of the Kansas City Art Institute

GENERAL NEWS

Holiday Travel Jam Hits Peak in West

Several roads report halting of ticket sales—standees throughout the country

The greatest Christmas travel jam in the history of the west was produced by crowds of returning service men and a tremendous upsurge in civilian travel for the Christmas holiday. At Chicago more than 15,000 people packed the Union Station on Friday evening, December 21, and many of these were unable to board the overcrowded trains. In some cases it was necessary to halt ticket sales because every train had already been oversold. In other cases the overflow civilian crowds were taken care of in troop sleepers which would otherwise have run deadhead to the Pacific coast but were made up into extra sections of regular trains instead.

Despite the fact that travel from the coast was turned over almost entirely to military movement—the Southern Pacific, for example, handling 94 per cent military and 6 per cent civilian traffic for some days before Christmas—many thousands of soldiers were unable to secure accommodations and were detained in the Pacific ports. The principal reason for the jam was the arrival at Pacific ports of far more troops than the military authorities had led the railways to expect. However, the situation was eased over the week-end, and, by Christmas Day, although crowds consisting principally of service men still jammed railway stations throughout the west, the undue congestion of the latter part of last week had been relieved to a considerable extent. The accumulation of returning service men at Pacific coast ports is being rapidly cleaned up, but the diversion of freight power to handle military movements is causing freight congestion on several of the lines.

Eastern railroads generally reported more traffic, with less equipment, than at any similar period previously. The Pennsylvania said that troop movements were "very heavy" and that on Friday and Saturday, when the situation was "at its worst," between 10 and 12 per cent more passengers were carried than last year at the same time. Monday was "about normal," Tuesday was "light" and the jam-up that was expected Tuesday night "did not develop." As one railroad spokesman put it: "They all tried to go Friday and Saturday but nobody was very anxious to get back." The Pennsylvania did not stop selling tickets, he said.

The New Haven anticipated a 20 to 30 per cent increase in passenger travel over last year, but latest advice is that it nowhere reached these proportions.

The New York Central reported "great difficulty collecting tickets," with standees crowding all coach trains. On Saturday, the N. Y. C. temporarily stopped the sale of tickets on east-bound trains out of Chicago. All stations between Toledo and Erie (both east-bound and west-bound) also followed this practice, and at Cleveland, ticket sale was halted temporarily, being resumed only when it was apparent more people could get on trains passing through.

At Grand Central station, New York, the station was jammed both Friday and Saturday, but "we never stopped the ticket sale here," an N. Y. C. spokesman said.

Stranded Veterans Plight Laid on Government's Doorstep

The responsibility for more than 100,000 veterans being stranded at Pacific Coast ports over the Christmas holidays rests squarely with the government and not with the railroads, the Army or the Navy, according to a statement by Hugh B. Siddall, chairman of the Western Passenger Association and the Western Military Bureau. Mr. Siddall listed as the three principal reasons for the failure to move the men as (1) non-delivery of 1,200 troop sleepers ordered last spring but tied up by strikes, and (2) insistence on sending thousands of Mexican laborers home for the Christmas season and (3) insistence on moving Japanese evacuees.

The government could have helped too by deferring or limiting internal movements of draftees and troops during December.

"There is no excuse for delivery of only 150 of the 1,200 troop sleepers ordered by the Army last spring," Mr. Siddall said. "The government has not hesitated to seize industries and plants in urgencies no greater than this.

"Mexican Laborers, brought into the United States to work during the war emergency, are being moved to Mexico under government orders.

"Japanese, who were interned in camps during the war are, by government order, being moved to their former homes, mostly on the West coast.

"Despite these unnecessary movements the railroads have gone all-out trying to salvage as much as they could from a bad situation", Mr. Siddall said. "Every serviceable piece of passenger equipment in the country has been working day and night, and train crews have worked close to the point of exhaustion.

"The traveling public, to which the railroads must look for their passenger business in the future, has been inconvenienced as never before. Now that the war is over, it is hard for people to understand why they should be told to stay off trains and forced to put up with generally inferior passenger service."

Railroading in 1945 Reviewed by Pelley

Recalls unusual achievements, but notes net's drop below three previous years

Making his usual year-end statement on December 27, J. J. Pelley, president of the Association of American Railroads called 1945 a year of "unusual difficulties and achievements" from an operating standpoint, but noted that, from a financial standpoint, the net earnings were less satisfactory than in any of the three preceding years. He warned that the decline in traffic may reach a point where it will be difficult, and perhaps impossible, to continue present railroad rates in the face of existing wage and price levels. Mr. Pelley's statement follows:

"From an operating standpoint the year 1945 was for the railroads one of unusual difficulties and achievements. Early in the year the record snow storms in the critical Great Lakes area seriously disrupted traffic movement, but the railroads delivered during that period to the Atlantic ports for shipment to Europe more war supplies than ever before. The sudden ending of the war, first in Europe and then in the Pacific, with its effect upon the nature, direction and flow of railroad traffic, imposed unusually difficult operating problems. Nevertheless, the high efficiency which has characterized railroad operations throughout the war was continued, and in some particulars new high levels were reached.

"At the opening of the year, the railroads were carrying traffic arising from the nation's maximum war effort. At the close of the year, in bringing home the servicemen from the Pacific and Atlantic ports, they were handling a heavier concentration of military travel than at any time during the war itself. Nevertheless, the deline in the movement of most classes of freight and of general travel after the close of hostilities with Japan, brought the total freight movement for the year down to about 680 billion tons miles, or approximately 8 per cent less than in the year 1944, and the total passenger travel down to approximately 91 billion passenger miles, or about 5 per cent less than in 1944.

"In the latter months of 1945, the general level of freight traffic was nearly 20 per cent below the corresponding period in 1944. Certain commodities, however, notably grain and grain products, are moving in record volume, causing an extraordinarily heavy demand for high type box cars suitable for such loadings.

"While there was a decline in total passenger business for the year, the nature of the traffic was such as to require an

unusually large movement of passenger equipment, since empty cars had to be sent by the train load to the ports through which soldiers and sailors are returning from overseas at the rate of a million or more men a month. The peak of this military movement, coinciding with the heavy holiday travel at Christmas and New Year, created for the railroads the most difficult passenger handling problem they have ever faced.

"The railroads were called upon to handle these double peaks of travel with virtually the same passenger equipment which they had at the beginning of the war. Since the close of the war, however, with the relaxation of wartime restrictions upon the securing of new equipment, the railroads have placed orders for approximately 1,500 new passenger train cars of the most modern type. Virtually none of these, however, can be delivered before well into 1946.

"New freight cars installed in 1945 amounted to approximately 40,000 which was more than in any year since 1942, before the effect of war restrictions on railroad car building was fully felt. At the end of 1945, 36,000 freight cars were on order.

"During 1945 the Class I railroads spent for fuel, materials and supplies used in current operations approximately the same as the $1,610,529,000 spent in 1944. Capital expenditures for new equipment and improvements in roadway and structures are estimated at $600,000,000 for 1945, as compared with $560,112,000 in the preceding year.

"Railroads have much deferred maintenance work to be done, although they are not under-maintained in the sense that they cannot perform freight and passenger services safely and efficiently. There also is a considerable amount of deferred improvements in roadway and equipment which could not be carried out during the war, but which will now be undertaken to the extent required for better service and more efficient operation in the future.

"Research looking to a continuation of the same sort of progress in technology which made possible the war performance of the railroads is going ahead vigorously on a broad front. Much of this research deals with a multitude of details which are important in the safe and efficient production of transportation. Results of this research will begin to be seen in the coming year.

"From a financial standpoint, net earnings in 1945 were less satisfactory than in any of the three preceding years. The peak in net earnings was reached in 1942, and due to rising operating costs has since been on the decline. Gross revenues in 1945, for example, were nearly $1,500,000,000 above those of 1942, but net railway operating income was below 1942 by substantially more than $600,000,000.

"At the close of 1945 the railroads were hauling freight at general rate levels no higher than before the war started, while the average charge for carrying a passenger one mile was only three per cent higher, and was actually lower than before the first World War. This was true despite increases in railroad wages in 1941 and again in 1943 which totaled 28 per cent, and increases in the price of materials and supplies since Pearl Harbor which averaged about 24 per cent.

"This stability in rates in the face of rising wages and price levels was made possible by the combination of a number of factors. There was much better utilization of equipment, heavier loading, more prompt loading and unloading, and a lesser percentage of empty car mileage, largely as a result of the finest cooperation and teamwork that has ever existed between the shipping public, the government and the railroads, which was made even more effective by the helpful orders of both the Office of Defense Transportation and the Interstate Commerce Commission. In addition, the rising volume of traffic which enabled the railroads to operate at nearly full capacity was of the greatest importance. With the downturn in the volume of traffic and in gross operating revenues, which began in the latter part of 1945, and with the inevitable relaxation of the strict controls and efficiency practices of the war period, it will be increasingly difficult to continue present railroad rates with the present wage and price levels. It may, in fact, well become impossible."

Historical Society to Hear of Progress in Truck Design

V. L. Green, assistant mechanical engineer of the Chicago, Milwaukee, St. Paul & Pacific, will address the Chicago chapter of the Railway and Locomotive Historical Society, on January 11, on the subject "The Progress of High Speed Passenger Car Truck Development". The meeting, which will be held at 205 West Wacker Drive, Chicago, Room 1200, at 7:30 p.m., is open to the public.

Pullman to Continue Operation Until March 31, Court Decrees

With Pullman Company contracts with the railroads expiring December 31, the special three-judge expediting court in Philadelphia on December 26 ordered the Pullman Company to continue its sleeping car service on the railways until March 31, 1946. This will permit the buying group of upwards of 50 railroads to complete financial procedures for consummation of the sale, and will enable Pullman to sell such of its light-weight equipment as any of the railroads, exercising their options, wish to purchase.

The court, consisting of Senior Circuit Judge John Biggs, Jr., and Circuit Judges Albert B. Maris and Herbert F. Goodrich, rejected a request made by Jacob Aronson, counsel for the railroads, for modification of its ban on interlocking directorates between the new management and the Pullman Company. Asserting that if the decree "doesn't work, come back," Judge Biggs said that it was the court's opinion that the terms of the decree would not be challenged if the Pullman board was composed of 15 directors not associated with the railroads.

Raising the question of competitive bidding should new equipment be ordered, Mr. Aronson suggested that the court might wish to make some suggestion concerning the conduct of such bidding, following in form the regulations of the Interstate Commerce Commission on railroad equipment purchases. William C. Dixon, special assistant attorney-general, opposed Mr. Aronson's suggestion, stating that the Department of Justice wanted to come back to the court from time to time and have the court say what constituted competitive bidding. Judge Biggs remarked he he didn't see how the court could take charge of competitive bidding "except possibly through an agent." This matter will be gone into further at the hearing to be held January 4.

Freight Car Loadings

Carloadings of revenue freight for the week ended December 22 were not available for publication at the time this issue went to press.

Loading of revenue freight for the week ended December 15 totaled 771,594 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings

For the Week Ended Saturday, December 15

District	1945	1944	1943
Eastern	150,198	142,345	146,362
Allegheny	163,200	155,123	164,731
Pocahontas	55,476	39,519	55,311
Southern	124,874	120,760	116,235
Northwestern	86,989	87,759	84,671
Central Western	128,091	129,792	120,285
Southwestern	62,766	74,944	71,286
Total Western Districts	277,846	292,495	276,242
Total All Roads	771,594	750,242	758,881
Commodities			
Grain and grain products	54,513	44,678	48,573
Live stock	21,089	19,234	17,019
Coal	180,695	142,673	177,079
Coke	13,228	13,145	14,759
Forest products	33,070	39,409	41,779
Ore	9,974	11,115	12,281
Merchandise l.c.l.	116,672	102,229	98,730
Miscellaneous	342,353	377,759	348,661
December 15	771,594	750,242	758,881
December 8	776,375	793,156	823,311
December 1	803,770	807,836	862,733
November 24	716,494	768,338	819,832
November 17	800,361	863,992	882,287
Cumulative Total, 50 Weeks	40,706,600	42,060,447	41,155,471

In Canada.—Carloadings for the week ended December 15 totaled 70,045 as compared with 72,678 for the previous week and 67,632 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

Totals for Canada:	Total Cars Loaded	Total Cars Rec'd from Connections
Dec. 15, 1945	70,045	36,078
Dec. 16, 1944	67,632	36,833
Cumulative Totals for Canada:		
Dec. 15, 1945	3,507,557	1,748,215
Dec. 16, 1944	3,550,832	1,924,305

A. S. M. E. Railroad Division Elects Officers

At the regular annual meeting of the A. S. M. E. Railroad Division in New York on November 29, the following new officers were installed:

Executive Committee—K. F. Nystrom (chairman), chief mechanical officer, Chicago, Milwaukee, St. Paul & Pacific; W. C. Sanders, general manager, Railway Division, Timken Roller Bearing Company; P. W. Kiefer, chief engineer, motive power and rolling stock, New York Central; B. S. Cain, assistant engineer, Locomotive Division, General Electric Company; J. M. Nicholson, mechanical assistant to vice-president, Atchison, Topeka & Santa Fe; E. L. Woodward (secretary), western mechanical editor, *Railway Age*.

General Committee—K. F. Nystrom

(chairman); A. A. Raymond, superintendent of fuel and locomotive performance, New York Central; J. E. Davenport, vice-president, American Locomotive Company; H. H. Urbach, mechanical assistant to vice-president, Chicago, Burlington & Quincy; K. A. Browne, research consultant, Chesapeake & Ohio; C. M. Darden, superintendent of machinery, Nashville, Chattanooga & St. Louis; E. D. Campbell, vice-president, American Car and Foundry Co.; E. R. Battley, chief of motive power and car equipment, Canadian National; E. S. Pearce, president, Railway Service & Supply Corp.; W. H. Baselt, mechanical assistant to vice-president, American Steel Foundries; E. P. Gangewere, superintendent of motive power, Reading Company; C. E. Pond, assistant to superintendent of motive power, Norfolk & Western; C. H. Beck, general sales manages, Westinghouse Air Brake Company; W. I. Cantley, mechanical engineer, A. A. R., Mechanical Division; F. P. Huston, development engineer, International Nickel Company; R. P. Johnson, chief engineer, Baldwin Locomotive Works.

S. P. Passenger Haul Hits Peak as '45 Closes

Getting the boys back home has developed the biggest railroad passenger job in history and as 1945 draws to a close the Southern Pacific's passenger traffic is running about six times the prewar passenger miles, President A. T. Mercier said in his year-end comment on the company's activities.

"The railroads still have a war job to finish," Mr. Mercier pointed out, "and until the homecoming movement of veterans is completed, this will continue to have first attention."

While freight traffic eased off with the decline in military shipments, the Southern Pacific has been carrying more Army and Navy personnel since V-J Day than at any time during the actual conflict. Exceeding official Army and Navy estimates furnished the carriers, the return of service men grew in volume through October and November and built up to a peak in December. Without having been able to build any new passenger cars since before the war due to lack of priorities, and having received only about 1,200 troop sleepers from the government, the railroads have been called upon to handle about 95 per cent of all organized troop movements.

The system's ton-miles of freight for 1945, it was estimated, will show a decrease of approximately 6 per cent from the all-time record set in 1944, but are still nearly three times those of 1939, when they started a five-year climb to successive all-time highs.

Southern Pacific's man-power shortage, which imposed a severe handicap during the war, still continues and in recent months has been aggravated by the repatriation of thousands of Mexican nationals who were employed for war-time track maintenance work. More than 5,000 men are now needed on the company's Pacific lines alone, it was announced, in skilled and unskilled jobs.

With its physical plant at greater capacity than ever before, as a result of war-time expansions, the Southern Pacific has an aggressive post-war program to serve the needs of business and agriculture for further development of the West, the railroad president said. Orders for nearly $24,000,000 worth of new freight cars and rail were placed by the company in the closing months of 1945.

In the passenger traffic field, the company has plans for new streamlined coaches and sleeping cars to enlarge upon and improve the de luxe services now provided by its "Daylights," "Sunbeams," "Larks" and "City of San Francisco" trains. These additions to equipment will represent the latest advances in car design and styling, and will be announced as they are actually ordered from manufacturers, it was stated; this in turn depending on conditions in the railway supply and manufacturing field and other factors.

"As to both freight and passenger service, it will be the Southern Pacific's aim to give the public what it wants at a price it can pay," President Mercier said.

For the last six years, it was emphasized, the Southern Pacific has devoted much of its earnings to the betterment of its financial structure. Debt, other than equipment obligations, has been reduced by approximately $235,000,000, or 32.8 per cent; and this, coupled with major refunding operations, has resulted in reducing debt maturing by January 1, 1955, from $451,000,000, as it existed January 1, 1940, to $68,000,000 as it stands at the close of 1945. Annual interest charges have been reduced by $9,746,000 or 31.4 per cent, since December 31, 1939.

Even more important than new mechanical improvements in the Southern Pacific's post-war outlook, Mr. Mercier said, is the human side of railroading. Conference training courses for supervisors have been conducted throughout the company's organization during the past year. This will be greatly expanded in 1946 and a comprehensive program of specialized training for all Southern Pacific people who come in contact with the public is now under way with a view to helping them give the utmost in friendly, personal service.

Airline Operations in 1945

Operations of United States airlines "broke all records" in 1945, according to a review prepared by the Air Transport Association of America. Traffic gains over 1944 ranged from 57 per cent in revenue passenger-miles to about 39 per cent in ton-miles of express and freight, the A. T. A. statement said.

The number of planes in the domestic airline fleet reached a total of 402 as of December 15, as compared with the pre-war peak of 359—"with scores more in the process of reconversion and other new models coming off the production lines."

The A. T. A. compilation was based on the latest carrier reports plus a proportionate estimate for the final period on which returns had not been tabulated. The principal items relating to the domestic airlines were set forth in the statement as follows:

Revenue passenger-miles: A total of 3,525,619,866 as compared with 2,246,894,489 for 1944. This is an increase of 56.9 per cent, or 1,278,725,377 passenger-miles.

Revenue-miles: A total of 219,169,459, as compared with 144,240,440 for 1944. This is an increase of 51.9 per cent, or 74,929,019 revenue-miles flown.

Revenue passengers: A total of 6,621,842, as compared with 4,575,716 for 1944. This is an increase of 44.7 per cent, or 2,045,852 passengers. Toward the end of 1945, as more planes were becoming available, the increase in number of passengers was running higher than 62 per cent over the corresponding period in 1944.

Ton-miles of mail: A total of 72,231,126, as compared with 51,143,837 in 1944. This is an increase of 41.2 per cent, or 21,087,289 ton-miles.

Ton-miles of express and cargo: A total of 24,505,243, as compared with 17,694,988 in 1944. This is an increase of 38.4 per cent, or 6,810,255 ton-miles.

White House Talk Concerned Bulwinkle Bill

Responding to a question at his December 20 press conference, President Truman said that the Bulwinkle bill to stay the operation of antitrust laws with respect to carrier agreements was the subject of his recent talk with J. J. Pelley, president of the Association of American Railroads, and J. Carter Fort, the association's vice-president and general counsel.

The Pelley-Fort visit to the White House on December 18 was noted in the *Railway Age* of December 22, page 1027. The Bulwinkle bill, having been passed by the House, was pending before the Senate committee on interstate commerce when Congress adjourned on December 21 until January 14, 1946.

A. S. M. E. Honors Railroad Division Members

At a luncheon of the A. S. M. E. Railroad Division, held on November 29, during the annual meeting of the Society at New York, six members of the Railroad Division were honored by advancement from the grade of "member" to the grade "fellow" and suitable certificates were presented by Alex D. Bailey, retiring president of the society. The certificates were awarded to the following for distinctive engineering contributions to the railroad industry: K. F. Nystrom, chief mechanical officer of the Chicago, Milwaukee, St. Paul & Pacific and incoming chairman of the A. S. M. E. Railroad Division; C. T. Ripley, chief engineer, Technical Board, Wrought Steel Wheel Industry; C. E. Brinley, chairman of the board, Baldwin Locomotive Works; W. C. Dickerman, chairman of the board, American Locomotive Company; J. B. Ennis, senior vice-president, American Locomotive Company, and P. W. Kiefer, chief engineer of motive power and rolling stock, New York Central System.

Club Meetings

The Car Foremen's Association of Omaha, Council Bluffs and South Omaha Interchange will meet at 1:30 p. m., January 10, in the Chicago & North Western freight house, at Omaha, Neb.

Changes in the 1946 A. A. R. rules of interchange will be discussed by the Car Foremen's Association of Chicago when this group meets at 8 p. m., January 14, at Hotel La Salle.

With the Government Agencies

Sees War's Traffic Tide Being Reversed

Commerce department review notes declines in business and earnings

The wartime tide of railway operations is gradually being reversed, according to an article appearing in the December issue of the "Survey of Current Business," monthly publication of the Department of Commerce. The downtrend in general business activity, the contraction in the government's transportation needs, and the removal of various limitations on competing forms of transport have placed rail traffic and earnings on a declining curve, it was said.

In this second of two articles on the wartime operations of the railroads and the industry's postwar prospects, Haskell P. Wald, of the Current Business Analysis Unit, Bureau of Foreign and Domestic Commerce, reviews the wartime financial gains of the railroads and presents projections of passenger and freight traffic that might be expected at various levels of gross national product. The article also analyzes prospective railway earnings under different assumptions as to postwar traffic volume.

"The railroads are by no means unprepared to cope with the new situation brought about by the end of the war," the article states. "They are returning to peacetime operation with a physical plant which, with the exception of passenger-carrying equipment, was generally well maintained during the war, although it is true that only limited modernization and improvement has been possible since 1942. Their financial condition is the strongest since the late twenties, the traffic bonanza of recent years having brought widespread financial improvement to the industry.

"There are emerging factors, however, which weigh heavily on the opposite side of the railway ledger. The war traffic volume of the rail carriers was swollen not merely by the transportation of munitions and military personnel, but also by the diversion of a sizable amount of freight and passenger movement from competing forms of transport. Such temporary gains of the railroads are being eliminated as the unwinding of the war economy progresses. Thus, a decided drop in rail traffic is inevitable, even if general business activity holds up well relative to the war years.

"As the railroads shift to a lower scale of operations, the average carload, occupancy rate, and length of haul will be reduced. Thus, there will be a tendency for costs to increase per unit of output, except to the extent that technological progress makes possible addiional operating economies. In other words, the decreasing cost phenomenon which was so important under wartime traffic volume cannot be expected to operate in the period ahead.

"Moreover, unit operating expenses—wage rates, fuel and materials prices—are substantially above earlier years when traffic volume was more comparable with what might develop a year or two from now. Clearly, the relative inflexibility of various costs is an important factor affecting the earning power of the railroads under the existing rate structure and an appreciably lower scale of operations."

The article discusses the disposition of the high railway earnings of recent years—the amounts paid out as dividends, the expansion of working capital, and the progress in reducing fixed interest charges through debt retirement, refunding operations, and re-organizations. Past statistical relationships between freight and passenger traffic and gross national product are analyzed and estimates are made of rail traffic at various assumed levels of gross national product which are assumed to cover the range of probabilities for a postwar year such as 1947 or 1948. These traffic projections are then translated into operating revenues.

"In summary," the articles continues, "it can be said that the statistical examination of prospective railway freight and passenger movement indicates that with the lower of the range of estimates of gross national product, the combined traffic would be roughly half-way between 1940 and 1941 volume, and under full employment assumptions traffic would be moderately below 1942 volume. The former would still provide the railroads with considerable more business than they handled in the 'Thirties but with less than in the 'Twenties. The upper estimate would mean far heavier traffic than in any peacetime year."

Noting how railway earnings are sensitive to changes in general business activity, the article says: "Should unemployment be kept close to a minimum in the period ahead, the analysis suggests that railway net income after taxes under the recently passed tax bill would approximate the amount earned in 1944, if current cost-price relationships prevailed, despite a reduction of almost one-fourth in gross operating revenues.

"At the other extreme, the volume of national output that would be associated with unemployment as high as experienced in the early 'Thirties would depress railway net income very substantially, even though the traffic that would be generated would still be high by prewar standards. Under such conditions, the financial strength gained as a result of wartime operations would be gradually dissipated.

"The preceding generalization should not be permitted to conceal the fact that wide disparities in the earnings of individual

(*Continued on page 1064*)

Troop Movement Far Ahead of All Plans

Told to prepare for 14,000 men a day from Pacific coast, roads carry 25,000

In response to a call for current information on the movement of troops from overseas stations to their homes, particularly through Pacific coast ports, the so-called Mead committee of the Senate was told on December 21 that the railroads have exceeded by a wide margin the average daily loading of military personnel that they had been prepared to handle, on the basis of advance estimates made by the Army and Navy of the number of men to be returned during December. In the words of Colonel J. Monroe Johnson, director of the Office of Defense Transportation, "nothing that can be done is not being done," but the committee was told that delays in the transportation of men from the West coast ports could not be avoided with the facilities that are available.

No Lack of Team-Work—The special committee to investigate the national defense program, which was headed by President Truman before his election to the vice-presidency, called spokesmen for the O. D. T., the armed services, and the railroads before it to obtain a current report of the passenger transportation situation on the eve of the three-week holiday recess of Congress. Brig. Gen. Robert H. Wylie was the Army's witness, Colonel Johnson spoke for the O. D. T., and Charles H. Buford, vice-president operations and maintenance of the Association of American Railroads, for the carriers. All agreed that complete understanding and harmony prevails between the railroads, the armed forces and the O. D. T., and that all were cooperating to make the best of a bad situation.

Colonel Johnson remarked in the course of his account of conditions that he had been disappointed at the number of men whom it had been possible to move by air from Pacific ports. The airlines had explained this, he said, on the ground that equipment and airport facilities to handle more were not immediately available, and it was evident that by time their capacity could be expanded the emergency would be over. Data received by the O. D. T. indicated that so far more than 98 per cent of all returning troops had been moved by rail. Of Pacific coast arrivals, about 40 per cent have been handled through Puget Sound ports and Portland, Ore., about 35 per cent through the port of San Francisco; and about 25 per cent through San Diego, Cal., and Los Angeles.

P. O. W. Movement Halted—Various expedients to relieve the jam at the West

coast terminals have been considered, the committee was told in answer to questions. The Army has stopped the transportation of prisoners of war for the present, it was pointed out, releasing some equipment that had been assigned to that work. So-called interior moves of military personnel were suspended for the holiday period, except where replacements are being transferred to the ports for service overseas to release men now abroad who are eligible for discharge. Consideration had been given to moving more men east over the Canadian lines, but the general impression was that about everything that was possible to take advantage of this alternative was being done.

The "redeployment" movement of troops as programmed was "child's play" compared to the present situation, Colonel Johnson remarked, and he called repeated attention to the fact that the lines serving the Pacific coast, with their relatively limited capacity, had averaged a daily movement of more than 24,000 troops eastbound daily over a 10-day period, at a time when storms and zero weather, prevailing over a large part of the country, reduced the efficiency with which rail operations can be performed. Mr. Buford commented also on the effect of bad weather on railroad performance, pointing out that labor was not available to shovel snow at many points, that it was necessary to run snow plows ahead of troop trains, so tying up power and crews, and that large numbers of Pullman cars were tied up awaiting repairs or servicing because sufficient skilled men were not available.

36 Trains a Day—"During the two-week period ending December 19," said the A. A. R. vice-president, "we have moved an average of 36 special troop trains a day from the Pacific coast. These trains have handled each day an average of 368 sleeping cars and 132 coaches and have moved slightly over 19,000 service men in organized troop movements.

"In addition to the organized movement, there is a heavy flow of miscellaneous military travel on regular passenger trains. From actual count made on December 5 to 7 inclusive we found 10,000 military personnel daily moving from West coast ports on sections of our regular trains. . . . The original schedule of arrivals on the Pacific coast called for a movement averaging, at the peak, about 14,000 men a day. The railroads undertook to handle that many, and some more. The Army and the Navy have been able to exceed by a wide margin their original schedule for the return of service men from the Pacific. The railroads, too, have been able to exceed largely what they undertook to do. . . .

"The railroads have not been able to move all arriving service men currently and as comfortably as they would have liked to. That is not a matter for astonishment to us. Throughout the war period, the railroads sought to secure additional passenger equipment, but other war needs were such that the authorities in charge of these matters did not permit it, and virtually no new coaches were built. . . . The movement of returning service men is being handled, therefore, with the equipment which saw us through the war.

"Under the circumstances, putting an average of 500 passenger cars a day into special trains at the Pacific ports is a major transportation achievement, especially since about four-fifths of the men in these trains are destined to points east of the Mississippi river. That means at least a 2,000-mile haul eastward, with return of the equipment, generally moving in special trains of empty cars.

Only Seven Lines—"All this special train movement in both directions is handled on seven lines of railroad, for the most part single track. These lines are also carrying a heavy movement of regular trains, which are largely occupied by service men. Furthermore, the job is now being done in winter blizzards and frequently in sub-zero weather.

"In order to handle the movement now taking place from the Pacific coast the western lines have had help from the eastern and southern railroads in the loan of passenger equipment," Mr. Buford reminded the committee. "The number of cars withdrawn from all lines for strictly military service has created such a shortage of passenger equipment for the general movement of business throughout the country that all persons who attempt to ride on trains in the next few weeks are likely to meet with a great deal of inconvenience and disappointment."

That some members of Congress wished to go on record for even more stringent treatment of "civilian" travelers than Mr. Buford predicted was evident in such comments as that of Representative Rivers, Democrat of South Carolina, inserted as an extension of remarks in the Congressional Record of December 20. "There was no bottle-neck in transportation, or a lack of priority when we were rushing these same men to the far-flung battlefronts to protect this nation," he stated. "Why should there now be any bottleneck or lack of priority for their transportation home?" Mr. Rivers went on to say that he had asked Colonel Johnson "to cancel all civilian travel—plane, train, and bus—not connected with the reconversion effort, in order to get these boys home for Christmas. I hope that every member of the House will do the same."

Appeal by Patterson—On the same day Secretary of War Patterson issued a statement explaining how many men were at that time at Pacific coast ports awaiting transportation and calling for public cooperation in making space available for them. He said:

"The Office of Defense Transportation and the Association of American Railroads are making great efforts to meet the War Department's demands that these troops be taken the rest of the way home. As the peak demands approached, 22,000 was the estimated daily capacity of West Coast rail lines, but in the last few days carriers have reached a total service lift of 24,000 per day, according to O. D. T. reports.

"Even with this improved daily lift, the backlog cannot be eliminated until after Christmas. Accomplishments by the railroads and airlines to date have been remarkable but are still far short of meeting the requirements. It is urgent that the public recognize that these troops have been brought across the sea in response to their demands and that it is now necessary for non-essential travelers to stay off the trains during this holiday season so that the servicemen may get home.

"The holiday season, severe weather and unprecedented numbers of travelers all tend to increase the load on the railroads. The time for the non-essential to stay off trains is now. The time for moving more equipment to the West coast is now, for only by Herculean efforts of all concerned can we speed the serviceman to his home."

Seal Will Head I. C. C.'s Water and Forwarder Bureau

Charles R. Seal, transportation director of the Baltimore (Md.) Association of Commerce, has been appointed director of the Interstate Commerce Commission's Bureau of Water Carriers and Freight Forwarders. He will assume his new duties in the latter part of next month.

The bureau directorship has been vacant for some time, the latest director having been George E. Talmage, Jr., who left to accept wartime assignments with the War Shipping Administration and Office of

Charles R. Seal

Defense Transportation, resigning an assistant directorship of the latter in October, 1944, to become associated with Higgins Industries.

Mr. Seal has been transportation director of the Baltimore Association of Commerce since the latter part of 1927. Prior to that time he had served with the I. C. C. in various capacities since April, 1912, including that of confidential clerk to Commissioners Clements and Woolley and as attorney-examiner until his resignation on November 30, 1927, to accept his present position. In the latter capacity he has represented the Baltimore Association of Commerce in cases before the commission, United States Maritime Commission and the Civil Aeronautics Board. He is chairman of the North Atlantic Port Conference and acted as chairman of the Joint Conference of Representatives of North Atlantic, South Atlantic and Gulf Ports and Steamship Lines in Washington in May, 1945, to discuss coastwise steamship problems. He is also past president of the Association of Interstate Commerce Commission practitioners.

Class Rate Changes Delayed

The three-judge Utica, N. Y., federal court which heard the petition of eastern states for a temporary injunction against the decision of the Interstate Commerce Commission in the class rate case has granted the injunction—necessitating action by the I. C. C. to suspend its order requiring the initiation of these adjustments on January 1.

Upon petition of the railroads' representatives, the commission has issued its special permission No. 27460, authorizing all respondent carriers in that case to publish by short form on one day's notice the postponement until further order of the commission of the effective date of all tariffs filed in compliance with the order. These tariffs were intended to go into effect January 1, 1946, to carry out the "interim" rate adjustments prescribed by the commission.

I. C. C. Opposes Enactment of Reed Reorganization Bill

Objections of the Interstate Commerce Commission to enactment of the bill (H.R.-4779) introduced by Representative Reed, Republican of Illinois, to modify railroad debt adjustment procedure have been presented to the subcommittee on bankruptcy of the House judiciary committee in oral statements by members of the commission, at a December 18 hearing, and in written comment by the commission's legislative committee, the chairman of which is Commissioner Splawn.

As noted in *Railway Age* of December 1, page 912, the bill was introduced after the so-called Hobbs bill, which also would modify the conditions controlling railroad reorganizations so that equity holders would receive more consideration than they have in plans which the commission has approved in recent years, failed to receive favorable attention in the Senate, where it has rested in committee since passage by the House February 14.

The Reed bill, in brief, would authorize courts to return any railroad undergoing reorganization under section 77 of the Bankruptcy Act to its owners, under certain conditions, if it produced "average annual earnings" over a 7-year period sufficient to pay its fixed charges during those years. The road then would be required to negotiate a suitable adjustment of its financial structure in order to reduce fixed charges, or to return the property to the control of trustees after the expiration of 18 months if no suitable adjustment could be made.

Before outlining in detail the commission's reasons for opposing passage of the bill, Commissioner Splawn observed that it is based on a hypothesis which has "two vital defects. First, the current 7-year average period includes all the war years. During this period, earnings have been abnormally high. With the present uncertainty as to the productivity of our industry and as to markets for any surplus after other countries have recovered from the shocks of war, existing conditions do not justify a forecast that the average of any period of seven years following the war will be anything like that of the seven years including all the war years. This fact, coupled with the practical certainty of increased wages and material costs makes the propriety of the use of such a test very doubtful indeed.

"Second," the commission's statement continued, "a road which merely earns enough to meet its fixed charges might have great difficulty in maintaining its solvency." Despite the fact that five roads in which the House committee had expressed particular interest — the Florida East Coast, New Haven, Rock Island, Missouri Pacific, and St. Louis-San Francisco — each showed earnings above fixed charges in the 'Twenties, it went on to say, each of these roads went into bankruptcy. "We call your attention to the fact that during the first seven years of the 'Thirties, 1930 to 1936, inclusive, the New Haven, the Erie, the New York, Ontario & Western and the Akron, Canton & Youngstown earned their fixed charges and could have qualified under the provisions of H.R.4779, yet they had to go into trusteeship under section 77."

In summing up the commission's position, the statement said: "We believe that any debtor corporation now in trusteeship which becomes solvent and able to meet its obligations would have no difficulty in being discharged from the jurisdiction of the court and in having the properties returned to it in accordance with the law of the land. We do not believe the test of solvency prescribed in H.R.4779 is sound. We do not believe that the average of seven years including war years of exceptionally heavy traffic is a proper guide as to peacetime conditions. We do not believe the debtor corporation can properly replace the court in deciding what is fair and equitable as between creditors and the debtor. Finally, we believe that the corporations which the courts under present conditions do not see fit to discharge from bankruptcy would in all probability come back to the courts after the minimum period of 18 months in a much worse plight and with the situation much more confused than if the process of the bankruptcy court had not been interrupted, and we believe it is not consistent with sound public policy to subject the debtor corporation to the inevitable temptations incident to the great powers that would be handed to it even for a minimum period of 18 months under the terms of this bill."

It appeared to the commission committee to be an "anomalous situation" to relieve a debtor of its responsibilities to its creditors and at the same time leave it free to dispose of its assets, as would be done by the proposed legislation, under its interpretation. As to the provision that the creditors shall propose a plan for readjustment of a debtor company's financial structure after the property has been returned to the owners under the bill's procedure, the commission statement pointed out that the security holders already have an opportunity to propose such plans under section 77, and expressed doubt that a plan offered the debtor would be more favorable to it than the terms the creditors would propose to the court. Except that the creditors "in panic" might accept some offer that would be "regarded as wholly inequitable during the orderly processes of reorganization in the bankruptcy court," the commission could not see what could be accomplished in the way of bargaining between the debtor company and its creditors that could not be accomplished under the provisions of section 77, or, in the alternative, of the McLaughlin Act.

Spokesmen for railroad equity holders and certain groups of railroad security owners presented statements to the House subcommittee urging passage of the Reed bill as a means of offsetting what they considered unnecessarily harsh treatment of holders of stocks of reorganization roads under the procedure followed by the courts and the commission.

Wage Mediation Sessions Recess Until January 4

Mediation proceedings in the current wage controversy between the railroads and 20 labor organizations, which commenced in Chicago on December 18, were recessed until after the holidays following the close of discussions on Friday, December 20. Mediation efforts will be resumed by the National Mediation Board in Chicago on Friday, January 4.

Truman Signs Revamp Bill with Transport Agencies Exempt

President Truman has signed the recently-enacted bill (H. R. 4129) which embodies a partial response to his request for legislation giving him broad authority to reorganize federal government agencies. Among the agencies exempt from provisions of the law are the Interstate Commerce Commission, National Mediation Board, National Railroad Adjustment Board, Railroad Retirement Board, and civil functions of the War Department's corps of engineers.

Car Service Orders

Interstate Commerce Commission Agent Homer C. King has issued the second revised version of his order No. 7, effective December 22 to March 1, 1946, unless otherwise ordered, directing railroads operating in certain eastern states to divert or reroute traffic over the most available route, without regard to shipper's routing, whenever extreme weather conditions make it advisable, provided that concurrence of roads to which traffic is to be diverted must be received before such action is taken.

The states named in the order are Connecticut, Delaware, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia and West Virginia, and it also applies to the District of Columbia and the lower peninsula of Michigan.

The extension to February 15, 1946, of the expiration date of the commission's Service Order No. 80, under which a permit system for the export shipment of grain has been operated, has been revoked by Amendment No. 39 to the order, allowing it to expire December 31, as provided before Amendment No. 38 was issued. The Car Service Division of the Association of American Railroads has arranged to cancel its Embargo No. 160, applying to such movements without permit, at the same time.

Further modifying the provisions of its

Service Order No. 394, limiting the free time before demurrage charges apply to refrigerator cars, the commission has issued Amendment No. 2 to that order, effective December 22, excluding December 23, 24, 25, and 30 and January 1, 1946, from the computation of free time under the order. This action was in compliance with a temporary restraining order to that end, issued by the federal district court for the District of Columbia, where litigation is in process over the commission's powers with respect to limitations on refrigerator car use by service orders.

Supplementing other controls over the movement of empty refrigerator cars which I. C. C. agents have been instructed to employ, the commission has issued Amendment No. 3 to Service Order No. 95, appointing Charles F. Hoover, with offices at San Francisco, as the commission's agent with authority to control the movement of such cars within and between California and Arizona, and Clarence B. Cox, Sr., with offices at Houston, with similar powers as to the movement of empty refrigerator cars within the state of Texas. The amendment was effective December 26.

The provisions of Service Order No. 93, relieving certain carriers from restrictions on the use of specified "giant type" refrigerator cars, have been further modified by Amendment No. 5 to that order, effective December 17, adding certain cars to those exempted from its operation and providing that the order shall expire March 1, 1946.

Traffic Bureau Head Retires

The Interstate Commerce Commission has announced "with deep regret" the voluntary retirement, effective December 25, of William V. Hardie, director of its Bureau of Traffic, after more than 25 years of "excellent service with the commission in that capacity." Until further notice, Secretary W. P. Bartel stated, Col. Clarence G. Jensen, who has returned to his post as assistant director of the bureau, after serving in the armed forces, will carry on the duties of acting director of the bureau.

Representation of Employees

The Brotherhood of Locomotive Engineers has supplanted the Brotherhood of Locomotive Firemen & Enginemen as Railway Labor Act representative of locomotive engineers employed by the Florida East Coast, while the Brotherhood of Railway Clerks has supplanted the Nashville, Chattanooga & St. Louis Railway Clerks Association as representative of N. C. & St. L. clerks, messengers and certain other office employees, according to results of recent elections which have been certified by the National Mediation Board.

The B. of L. F. & E. has also lost out on the Cuyahoga Valley where it has been supplanted as representative of engineers, firemen and hostlers by the United Steelworkers of America, Congress of Industrial Organizations. Meanwhile, however, the latter met defeat in a contest with the Brotherhood of Railroad Trainmen, which has retained the right to represent Cuyahoga Valley yardmen (conductors and switchmen). As a result of another recent victory the B. of R. T. has supplanted the Order of Railroad Telegraphers as representative of switchtenders employed by the Cincinnati Union Terminal; and it has also been chosen by the previously-unrepresented yardmen (foremen and helpers) employed by the Iowa Transfer.

On the Lehigh Valley the Railroad Yardmasters of North America, Inc., has supplanted the Association of Lehigh Valley Railroad Yardmasters as representative of yardmasters; while on the Erie the Railroad Workers' Industrial Union, District 50, United Mine Workers of America, has supplanted the Railroad Marine Workers, Local 933-5, International Longshoremen's Association, as representative of float bridge operators. Denver & Rio Grande Western coach porters, previously unrepresented, have chosen the Brotherhood of Sleeping Car Porters, while the American Train Dispatchers Association has extended its coverage of the Wabash to include all dispatchers, including day chief and night chief dispatchers.

Next Congressional Session Will Open January 14

The first session of the Seventy-ninth Congress adjourned sine die on December 21, a resolution having meanwhile been adopted to convene the second session on January 14, 1946. Since it will be the same Congress returning, all pending legislation retains its present status.

The principal first-session actions of interest to the railroads were the final enactment of the Boren bill to repeal remaining provisions of the land-grant-rate law, effective October 1, 1946, and House passage of the Bulwinkle to stay the operation of the anti-trust laws with respect to carrier agreements.

Sees War's Traffic Tide Being Reversed

(*Continued from page 1061*)

companies can be expected to remain a salient feature of the industry. Regional differences in economic activity, large variations in the make-up of the traffic load, and differences in capital structure and in plant and equipment are some of the factors which will continue to cause individual roads to fare differently than the industry generally."

The other article of Mr. Wald's two-part review was noted in the *Railway Age* of October 27, page 696.

Would Let Allied Vans Acquire Agents' Rights

Asserting that "the time has now come for a permanent clarification of the status" of Allied Van Lines, Inc., Examiner Philip N. Crowley has recommended in a proposed report that the Interstate Commerce Commission approve transactions whereby Allied is proposing to acquire the certificates of more than 300 of its agents, thus building for itself nationwide rights as a common carrier of household goods. The transactions would involve also the relinquishment by the National Furniture Warehousemen's Association of its control of Allied and the acquisition of such control by the participating agents. The proceeding is docketed as No. MC-F-2787.

Allied was organized by the Association in 1928 as a cooperative nonprofit corporation, and its status under the Motor Carrier Act has been before the commission for several years. Still pending is the reopened No. MC-15735 proceeding wherein Division 5's order of November 9, 1944, was vacated when the commission reopened the case on February 12, 1935. That case involves Allied applications for nationwide rights either under the Motor Carrier Act's "grandfather" clause or on the basis of its showing of public convenience and necessity.

Anti-Trust Division Objects—As noted in the *Railway Age* of November 18, 1944, page 789, where Division 5's report was reviewed, that report would have denied the "grandfather" application while giving Allied about what it sought on the basis of showing of public convenience and necessity. A previous approach had been Allied's proposal for the pooling of traffic and earnings of its affiliates, but that plan was rejected by the commission, as reported in the *Railway Age* of October 9, 1943, page 578. Meanwhile, there is pending in the courts an antitrust complaint against Allied, and the Antitrust Division of the Department of Justice has opposed the Allied applications before the commission.

The application involved in No. MC-F-2787 and dealt with in the present proposed report was filed May 21, 1945. It is the joint application of Allied and 330 of its carrier agents (called "transferor-applicants") for authority under section 5 of the Interstate Commerce Act for purchase by Allied of all operating rights of transferor-applicants to transport household goods in interstate or foreign commerce, for $1 and "other considerations"; and transferor-applicants seek authority under the same section to acquire control of Allied through purchase by each of one share of Allied's capital stock for $10 per share and "other considerations."

By amendment to the application, the National Furniture Warehousemen's Association seeks authority to divest itself of stock control of Allied, but the examiner would dismiss that phase of the application with a finding that no authority for such divestiture is required. The transactions further contemplate that 54 of Allied's so-called "non-carrier or booking agents" will each be given an opportunity to purchase one share of Allied's stock, and this phase, too, would be dismissed by the examiner.

140 Don't Want In—At the time of the hearing Allied had some 470 hauling agents, but about 140 of them had not indicated an intention to participate in the new set-up. Thus the number of transferor-applicants became 330, but the examiner would approve participation in the new set-up by only 322, eliminating eight with a finding that acquisition of their rights by Allied would not be consistent with the public interest. Among other conditions suggested by the examiner are those which would require that Allied cancel all contracts and arrangements between it and present hauling agents not involved in the plan; that Allied submit for approval by the commission a proposed schedule of accounts and records to be kept which would reflect Allied's entire operations under the plan—allocated according to divi-

sions of revenue paid and expenses for services rendered by Allied and the transferor-applicants; and that Allied and the transferor-applicants cancel from their non-carrier agency agreements a restriction against such agencies acquiring interstate operating authority except within 25 miles of the boundary of any city.

Radio Rules Formally Adopted

The Federal Communications Commission has announced the formal adoption of rules and regulations to govern railroad radio service, effective December 31, in the same form as the proposed rules issued in November and outlined in *Railway Age* of November 24, page 863, with one exception. Upon request of the Association of American Railroads, the final form of the rules omits the provision which would have authorized communications common carriers (that is, telephone, telegraph or similar companies) to be issued experimental authorizations for railroad radio service stations. This authority can be issued under other regulations.

The A. A. R. also had objected to the provision limiting the license term for railroad radio stations to two years, asking that a 5-year term be substituted, but the commission refused to extend the term beyond two years "at this time" on the ground that it is customary to have a shorter license term for the initial period so there can be "flexibility in making any necessary revisions in frequency assignments."

Materials and Prices

The following is a digest of orders and notices that have been issued by the Civilian Production Administration and the Office of Price Administration, since December 10, and which are of interest to railways:

Inventory Controls—The C. P. A. recently announced a modification of its general inventory controls in the case of work stoppages in manufacturers' plants. The modification is designed to prevent the piling up in strike-bound plants of excessive inventories of critical materials which are badly needed for use by other manufacturers and, also, to prevent unnecessary disruption of suppliers' production schedules and consequent loss of output.

Strict application of the new restrictions in cases of work stoppage might require immediate deferment or cancellation of all material orders, regardless of the length of the stoppage, thereby requiring re-arrangement of suppliers' schedules and adversely affecting the production and distribution of critical materials. It might also delay resumption of full scale operations at the termination of the work stoppage.

Direction 6 permits continued receipts of materials during the first 30 days following a work stoppage but requires complete adjustment of outstanding orders by the end of that time. It applies only to materials already on order. Thus, critical materials will be diverted to other users in the event of work stoppages of more than 30 days while, at the same time, a small reserve of materials may be built up to help in the later resumption of operations.

Lead—A further heavy use of the government stockpile of lead plus a reduction of 12 to 15 per cent in the permissive uses of the metal will be necessary to combat an indicated 60,000-ton lead deficit during the first quarter of 1946, the C. P. A. announced recently. At least 25,000 tons will be released from the government stockpile during the first three months of next year. A similar amount was released in the fourth quarter of 1945.

As a further step to narrow the gap between supply and permitted uses, the C. P. A. plans to require consumers to use some tonnages of secondary antimonial lead now piled up at various smelters, in preference to primary lead, where such material can be adapted to users' products. These proposed plans "to make ends meet" on lead were outlined by government officials to members of the Lead Producers Industry Advisory Committee at their recent meeting in Washington.

Asked by industry members why the government stockpile was not made completely available to meet the lead deficit to eliminate any reduction in allocations, officials of C. P. A.'s Tin-Lead-Zinc Division pointed out that such a procedure would exhaust the stockpile by April. The stockpile is expected to be down to about 75,000 tons by the end of 1945, they revealed.

The lead shortage is world-wide, government officials said. For this reason, they pointed out that it was not possible for this country to import sufficient lead to offset the declining rate of production here. Current demand is about 1,000,000 tons annually, which is far in excess of any pre-war year since 1929.

Production in the 1935-39 period was upwards of 600,000 tons annually, C. P. A. officials reported. However, exhaustion of deposits plus labor shortages have caused a decline to approximately 500,000 tons annually. Accordingly, we are more dependent than ever on imports, they said.

Prices

Building Materials—A new pricing method to enable producers of specified building materials to ship outside their normal marketing areas into temporary shortage areas was established recently by the O. P. A. Under this action, effective December 15, producers who elect to use this new method may add the full amount of freight costs to the f.o.b. plant maximum prices of their product. Industrial users of the materials will be required to absorb the amount of the increase.

Clay Products—An increase of approximately 9.7 per cent in ceiling prices for sales of vitrified clay sewer pipe and allied products in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, the District of Columbia, Virginia, West Virginia, Ohio, Kentucky, Michigan, Indiana and certain zones in Illinois and Wisconsin, was announced recently.

The increase becomes effective December 17, and is designed to compensate producers for higher production costs and higher wage costs resulting from wage increases approved by the W. L. B. This action increases the level of ceiling prices to 19.6 per cent over prices prevailing in March 1942 when price control in the sewer pipe field began.

Forged Steel Axles—An increase to $3.50 per 100 lb. from $3.15 in the base ceiling prices of forged steel railway axles has been provided by Amendment No. 23 to RMPR 136, effective December 19. The upward adjustment is designed to cover increases in direct materials costs and labor rates experienced by producers since 1941, and is authorized under O. P. A.'s "product standard" basis of price adjustment. On the basis of a study of operating costs of companies turning out more than 75 per cent of the total production, the increase is sufficient to cover average factory costs.

The $3.50 per 100 lb. is for axles in the rough. Prices for completely finished axles include the base price plus costs of extra work and treatment as required by the purchaser, also switching charges and freight from the producer's basing point. The basing points used by manufacturers are Pittsburgh, Pa., Chicago, Ill., and Birmingham, Ala.

Ready-Mixed Concrete—Manufacturers of ready-mixed concrete in Nebraska, Kansas, Oklahoma, Arkansas, Western Missouri, Idaho, Montana, Wyoming, Colorado, New Mexico and Utah, may increase their prices by the dollar-and-cent amount of the increased cost to them resulting from a recent adjustment in ceilings of Portland cement. Portland cement ceilings in those states recently were icreased 20 cents a barrel.

Amend No. 21 to Order No. 1 under Section 25 of MPR 592, effective December 18, marks the first increase in prices of ready-mixed cement in the affected areas since March 1942, O. P. A. pointed out. Manufacturers' sales under this action may be rounded off to the nearest five cents per cubic yard, the price agency said. If ready-mixed cement manufacturers were required to absorb the new costs, their earnings would be cut below the average in the base years 1936-1939, the agency explained.

Equipment and Supplies

LOCOMOTIVES

The GREAT NORTHERN has placed an order with the General Electric Company for two electric locomotives to be built at a cost of $500,000 each, and are reported to be the largest units of their kind ever constructed. Each locomotive will measure 101 ft. and will be capable of developing 5,000 hp. Each unit will be equipped with 12 traction motors, one for each pair of drivers, and two motor generator sets. Drive wheels will be 42 in. high, the axles will be equipped with roller bearings and control equipment will permit operation of the locomotives from either end. They will be delivered late in 1946 for service on the road's electrified segment in the Cascade mountains between Wenatchee, Wash., and Skykomish.

FREIGHT CARS

The ELGIN, JOLIET & EASTERN has ordered 300 50-ton gondola cars and 200 50-ton flat cars from the American Car & Foundry and 75 70-ton covered hopper cars from the General American Transportation Company.

PASSENGER CARS

New Haven Buys 180 New Passenger Cars

The New York, New Haven & Hartford has placed an order with the Pullman-Standard Car Manufacturing Company for 180 streamlined air-conditioned passenger cars. This is the second largest order for passenger cars received by Pullman-Standard since its reconversion to peace-time production.

Howard S. Palmer, trustee and president of the New Haven, announced the road's petition to the federal district court at New Haven, Conn., for authority to purchase the new cars. "These will cost approximately $13,500,000," Mr. Palmer said, "and the number ordered is sufficient to completely re-equip all the New Haven's regular Shore Line expresses between New York and Boston, its Boston-Washington and Philadelphia runs via the Hell Gate Bridge route, and several New York-Springfield, Mass., schedules.

"One hundred of the new cars will be coaches, ten will be dining cars, and fifteen will be grill cars. The remainder will consist of several types of ultra-modern lounge, parlor and observation cars." Deliveries are expected to begin sometime next fall.

Mr. Palmer told of the designs and of the efforts of the New Haven in developing the new equipment. "Three years of intensive research and experimentation by New Haven engineers and traffic officials, with passenger comfort and safety as the guiding principles, have gone into the design of the new cars. Exteriors will be finished in shining corrugated metal, accented by a New Haven hunter green band running lengthwise at window height.

"High on the list of special features in the interior design of all the equipment is a new type of lighting developed by the New Haven's own engineers. All orthodox methods of lighting have been discarded in this new system which fills the cars with a completely diffused, glareless and shadowless light. Wide, clear-view windows and improved toilet facilities are other innovations.

"The seating arrangement," Mr. Palmer continued, "is another radical departure from the usual. In addition to 64 roomier individual reclining seats with foot rests, the design calls for a smoking lounge with 14 seats separated from the main body of the car by a glass partition. This will accomplish the purpose of solving the smoking problem, one of the most vexing with which the railroad has to deal.

"And for the parlor and lounge cars, we have developed, among other things, a new type of seat. This is a luxurious, reclining chair that was enthusiastically received by all sizes and shapes of people who sat in it for test purposes.

"Our entire approach to this problem of post-war equipment," Mr. Palmer concluded, "has been dictated by the reactions of our passengers. During several years of experimentation with various types of 'mock-ups' in our Readville shops, we were constantly striving to perfect the coach and parlor car features desired by the majority of travelers. Along with this streamlining of equipment, we also expect to offer other advanced features in travel service that should make travel by rail to and from New England more attractive and more popular than ever before."

C. & O. Asks Prices on 1,000 Sleeping Cars

The Chesapeake & Ohio has invited proposals for the construction of 1,000 modern, light-weight sleeping cars. C. E. Newton, president, said that the invitation has been extended to some firms that have not heretofore built sleeping car equipment, as well as to the established car-builders.

IRON AND STEEL

The ATLANTIC COAST LINE has ordered 66,600 net tons of rail from the Tennessee Coal, Iron & R. R. Co. and the Bethlehem Steel Company.

SIGNALING

The MISSOURI PACIFIC has ordered a unit-wire control machine from the General Railway Signal Company for the control of a single siding at BW Siding, Kan., and an overlay siding at Komiskey, Kan., where the machine will be located. The 12 by 17-in. control panel equipped with 10 track indication lights, six switch levers and six signal levers, will control six switch machines and 18 signals.

Construction

NORTHERN PACIFIC.—This road has awarded a contract to the Cahill-Mooney Company, Billings, Mont., for the construction of a new power plant for its car shops at Laurel, Mont, at a total cost of $375,000. The company has also awarded another contract to Halvorson Construction Company, Billings, for a $49,000 addition to the Billings garage and office building of the Northern Pacific Transport Company, a subsidiary of the Northern Pacific.

ATLANTIC COAST LINE.—This railroad has awarded a contract for the construction of a shop building in Montgomery, Ala., at estimated cost of $183,000, to the Bear Lumber Company, Montgomery.

Supply Trade

W. F. Lewis has been appointed mechanical engineer of the **Chicago Railway Equipment Company**, with headquarters at Chicago.

David B. Smith, director of the Philco research division since 1941, has been appointed vice-president in charge of engineering of the **Philco Corporation**.

W. Lyle Richeson, Frederick H. Norton and **Philip A. Hollar** have been elected vice-presidents of the **American Car & Foundry Co.**, reporting to the vice-president in charge of sales.

Edwin B. Meissner, Jr., who recently returned to civilian life after nearly five years with the U. S. Army, has been elected a vice-president of the **St. Louis Car Company**, with headquarters at St. Louis, Mo.

Terminal Dioramas, Inc., with New York offices in Grand Central terminal, has established a studio and factory at 36-06 43rd avenue, Long Island City, N. Y., with complete facilities for designing and manufacturing three-dimensional advertising displays.

Ralph A. Powers has been appointed engineer in charge of electronic engineering at the **Allis-Chalmers Manufacturing Company.** Mr. Powers formerly was with the Bundy Tubing Company, Detroit, Mich. He succeeds **J. M. Cage**, who has resigned.

Lt. Robert C. Hood, who received his discharge in November from the U. S. Coast Guard, has been elected secretary of the **Ansul Chemical Company**, Marinette, Wis. Mr. Hood was associated with the firm before he entered military service in 1943.

Benjamin S. Dowd, executive vice-president, has been elected president and general manager of the **Vulcan Iron Works**, Wilkes-Barre, Pa. **J. F. O'Brien** has been appointed director of purchases; **George W. Walter**, works manager; **Joseph Lehnert**, production manager; and **C. A. Netter**, in charge of planning.

Fred Reiser, Jr., Cincinnati, Ohio, district manager for the industrial division of the **Timken Roller Bearing Company** since 1944, has been appointed division manager for all divisions of the company there. **Harry McCool**, field engineer on Timken graphitic steels for the territory east of Chicago, has been appointed sales engineer for the steel and tube division in the Cincinnati, Ohio, district, which includes Indiana, Kentucky and part of Ohio.

Alverd C. Stutson has been appointed chief engineer of the technical division-industrial section of the **Socony-Vacuum Oil Company**, to succeed **W. G. G. Godron**, who has retired. **Gerald J. Van Liew**, staff engineer, has been appointed to the position of assistant chief engineer formerly held by Mr. Stutson.

John A. English, Jr., assistant manager of railroad material sales of the **Carnegie-Illinois Steel Corporation**, at Chicago, has been promoted to assistant manager of Detroit district sales, with headquarters at Detroit, Mich. **Edward H. Backes**, who has been engaged in sales engineering in the railroad material and commercial forging division at Chicago, has been advanced to assistant manager of railroad material sales, with the same headquarters, succeeding Mr. English.

The Chicago advertising firm of **Reincke - Ellis - Younggreen & Finn**, which handles a large number of railroad supply company accounts, has changed its corporate name to **Reincke, Meyer & Finn.** At the same time the organization reported the election of **Joseph H. Finn** and **Wallace Meyer** to chairman of the executive board and president respectively, while **C. C. Stevens, Gordon E. Taylor** and **Joseph J. Finn** remain as vice-presidents and **Charles A. Reincke** continues as secretary-treasurer.

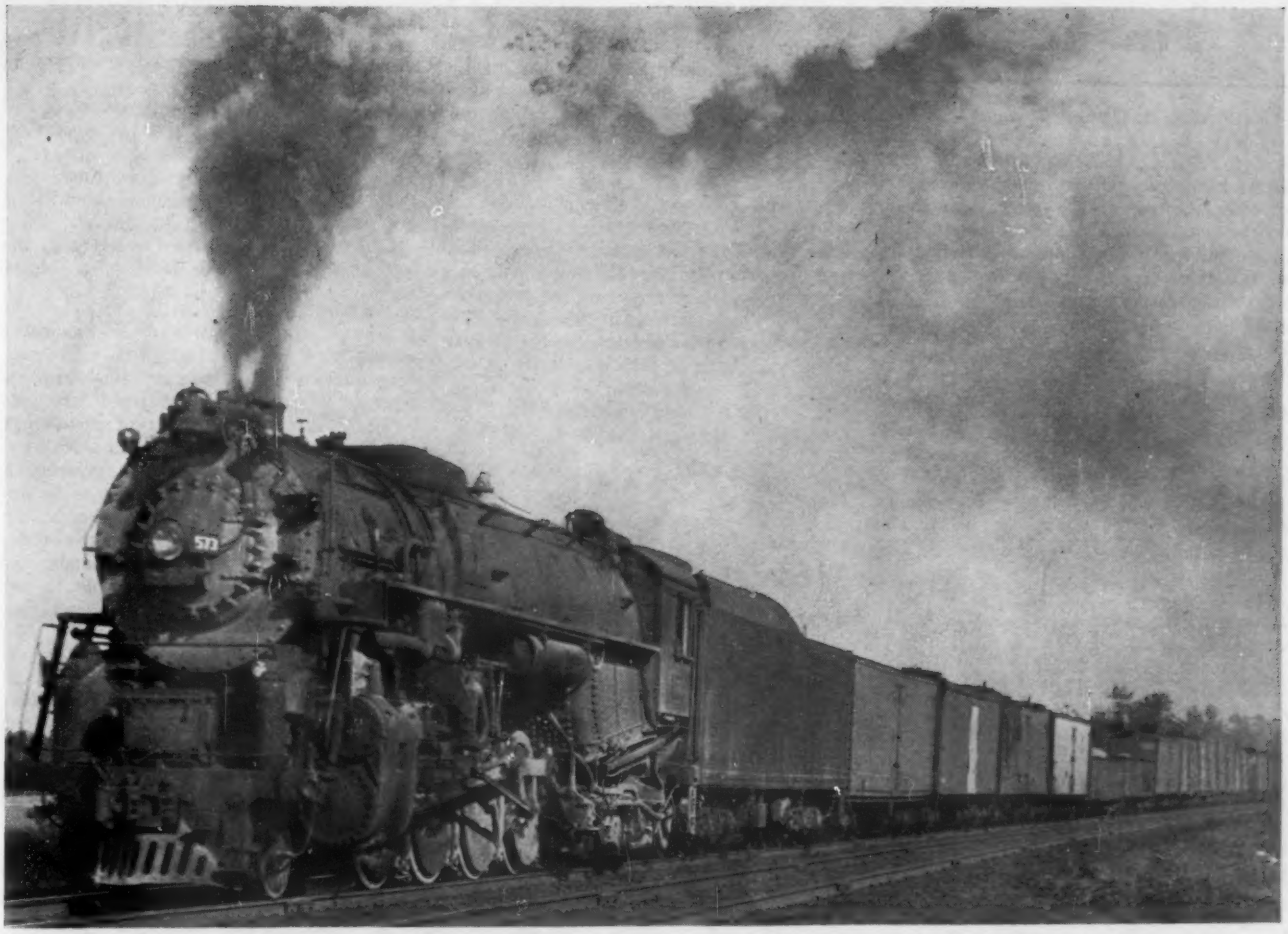
Fred M. Gillie, general superintendent of the Indiana Harbor plant of the **Inland Steel Company**, has been promoted to works manager, succeeding to part of the duties of **J. H. Walsh**, vice-president in charge of steel works, who has retired, but will remain as a member of the board of directors. **A. P. Miller**, assistant to the general superintendent at Indiana Harbor, has been advanced to general superintendent, relieving Mr. Gillie. **A. J. Cochrane** and **W. A. Perry** have been appointed assistants to Mr. Miller. **H. W. Johnson** has been appointed assistant to the president.

The **H. K. Porter Company**, Pittsburgh, Pa., has announced the sale of the car wheel foundry of its subsidiary, the **Mt. Vernon Car Manufacturing Company**, Mt. Vernon, Ill. T. M. Evans, president, stated that the company felt the outlook for chilled iron wheels was not particularly promising, in view of the higher operating speeds of the railroads and their consequent need for rolled steel wheels as a safety factor. The wheel foundry was sold to the Electric Auto-Lite Company of Toledo, Ohio. It is reported that the foundry will be converted to other work. The sale was in accordance with a previously established Porter policy of withdrawing from foundry operations. The company disposed of its Fort Pitt Steel Casting foundry located in McKeesport, Pa., in October.

OBITUARY

E. C. Argust, vice-president and secretary of the Morden Frog & Crossing Works, Chicago, died in a hospital in that city on December 19.

News Department continued on next left-hand page



Richmond, Fredericksburg & Potomac 2-8-4 built by Lima

Steam is STILL SUPREME

As steam motive power bore the brunt of the war's transportation burdens, it likewise will be relied upon to meet the major transportation needs of the days ahead.

To keep pace with demands for still faster and more economical freight movement, modern Lima steam locomotives are built to haul heavy freights at sustained passenger train speeds.

LIMA LOCOMOTIVE WORKS INCORPORATED, LIMA, OHIO

Financial

BALTIMORE & OHIO.—*Equipment Notes.*—The B. & O. has accepted a bid by the Irving Trust Company of New York of an interest rate of 1.50 per cent on $1,200,000 of equipment notes, series J, payable in 30 quarterly installments. The notes will be issued, subject to the approval of the Interstate Commerce Commission, in connection with the company's purchase of 500 50-ton steel hopper cars from the Ralston Steel Car Company.

CHICAGO, BURLINGTON & QUINCY.—*Refunding.*—Division 4 of the Interstate Commerce Commission has authorized this company to issue $49,765,000 of 2⅞ per cent first and refunding mortgage bonds, due in 1970, which have been sold to Halsey, Stuart & Company and others at 100.13999, making the annual cost of the proceeds 2.87 per cent. With these and other funds the company will purchase an equal principal amount of outstanding non-callable bonds, consisting of $32,470,000 of 4 per cent general mortgage bonds due in 1958, for which it will pay 120, and $17,295,000 of series B 4½ per cent first and refunding mortgage bonds due in 1977, for which it will pay 123, these being the amounts tendered by holders in response to invitations. In addition to a net saving of $1,757,476 which is expected to result from lower interest rates on the new issue, a federal tax saving of about $9,825,152 is anticipated. From December 31, 1941, to September 30, 1945, this company's outstanding debt has been reduced 23.3 per cent, the division's report noted, and its annual interest charges have been cut 26.8 per cent.

CHICAGO & NORTH WESTERN.—*Equipment Trust Certificates.*—This company has applied to the Interstate Commerce Commission for authority to issue $6,870,000 of equipment trust certificates in connection with the purchase of the following equipment: 300 50-ton flat cars from the Mt. Vernon Car Manufacturing Company; 800 50-ton box cars from the General American Transportation Corporation; 500 50-ton box cars from the Pullman-Standard Car Manufacturing Company; 400 70-ton gondolas from the Bethlehem Steel Company; 6 660-hp. Diesel-electric switching locomotives from the American Locomotive Company; and 4 2,000-hp. passenger, 6 1,500-hp. "A" unit freight, and 1 1,500-hp. "B" unit freight Diesel-electric locomotives from the Electro-Motive Division of General Motors Corporation.

ERIE.—*Promissory Notes.*—Division 4 of the Interstate Commerce Commission has authorized this company to issue $350,000 of 1⅜ per cent promissory notes, sold at par to the First National Bank of Scranton, Pa., in connection with the purchase, under a conditional sale agreement, of 100 70-ton covered hopper cars from the Greenville Steel Car Company at $4,449 each.

GREAT NORTHERN.—*Nine Million Expenditure Approved.*—Following approval of its board of directors, the Great Northern will shortly spend $9,426,000 for expansion and improvements and the purchase of new equipment. The proposed purchases will include cars for five complete trains for the road's Empire Builder, two electric locomotives for use on the electrified portion of the line in the Cascade mountains, ten 1,000-hp. combination road and switching engines and 550 box, flat and gondola cars.

ILLINOIS CENTRAL.—*Merger of Subsidiaries.*—This road has applied to the Interstate Commerce Commission for approval of a plan whereby it would simplify its corporate structure by acquiring the properties of various subsidiaries, including the Benton Southern, Bloomington Southern, Blue Island, Dunleith & Dubuque Bridge Company, Fredonia & Reeds, Golconda Northern, Herrin Northern, Kensington & Eastern, and St. Louis, Belleville & Southern.

READING.—*Merger of Subsidiaries.*—Division 4 of the Interstate Commerce Commission has approved a merger of 11 subsidiaries of the Reading into the parent company to effect system corporate simplification and tax reductions. The subsidiary companies, all of which are controlled by ownership of 75 per cent or more of outstanding capital stock, are the Allentown Railroad; Colebrookdale Railroad; Gettysburg & Harrisburg; North East Pennsylvania; Peoples Railway; Perkiomen Railroad; Philadelphia & Chester Valley; Philadelphia, Newtown & New York; Pickering Valley; Reading & Columbia; and Stony Creek. The Reading at the same time was authorized to assume liability with respect to certain indebtedness of the subsidiaries, as follows: $594,000 of Colebrookdale first mortgage bonds; $565,000 of Gettysburg & Harrisburg first mortgage bonds; $797,000 of first series mortgage bonds and $1,125,000 of second series mortgage bonds of the Perkiomen; $280,500 of preferred mortgage bonds and $100,000 of mortgage bonds of the Philadelphia & Chester Valley; $1,599,300 of first mortgage bonds of the Philadelphia, Newtown & New York; $850,000 of first consolidated mortgage bonds of the Reading & Columbia; and $350,000 of Stony Creek first mortgage bonds. The Allentown and the Peoples have no bonds outstanding and the Reading owns all bonds of the North East and the Pickering Valley. The Reading also owns all stock of the Peoples and the Perkiomen. Reading stock will be exchanged for stock of the other subsidiaries held by the public on the following basis: One share of Reading for one of Allentown; eight for 25 of Chester Valley or Gettysburg & Harrisburg; and one for 25 of Colebrookdale, North East, Newtown, Pickering Valley, Columbia, or Stony Creek.

RUTLAND.—*Trustee.*—Division 4 of the Interstate Commerce Commission has ratified the appointment of Albert A. Cree to serve as trustee of this road's property in reorganization proceedings under section 77 of the Bankruptcy Act, jointly with William E. Navin and in lieu of Wallace M. Fay, resigned.

SOUTHERN.—*Purchase of Atlanta & Charlotte Air Line.*—Division 4 of the Interstate Commerce Commission has approved the Southern's acquisition of control of the Atlanta & Charlotte Air Line by purchase of 15,719 shares of its capital stock at $250 per share, together with such additional shares of the 17,000 outstanding as may be offered at that price. The Air Line has been operated by the Southern and predecessor companies since 1881, as a part of its main line, and it has held an option to purchase the stock involved since 1914. Annual charges will be reduced about $157,000 as a result of the transaction, and direct ownership of an important segment of the system will be secured, the division pointed out.

TEXAS CITY TERMINAL.—*Refunding.*—Division 4 of the Interstate Commerce Commission has authorized this company, without resort to competitive bidding, to issue a 10-year 2⅞ per cent installment note for $1,580,000 to the Second National Bank of Houston, Tex., to evidence a loan, the proceeds of which are to be applied to the redemption at 104 of a like principal amount of the company's series A 4 per cent first mortgage bonds, due in 1961. Apart from tax savings, a net reduction in charges of $206,548 is anticipated. While the terminal is controlled by the Atchison, Topeka & Santa Fe, the Missouri Pacific and the Missouri-Kansas-Texas, the proprietary companies did not guarantee the first mortgage bonds and are not guaranteeing the new issue.

Average Prices Stocks and Bonds

	Dec. 26	Last week	Last year
Average price of 20 representative railway stocks..	62.07	61.89	47.64
Average price of 20 representative railway bonds..	100.66	100.70	93.15

Dividends Declared

Kansas City Southern.—4% preferred (year-end), $1.00, payable January 15, 1946, to holders of record December 31.

Massawippi Valley.—$3.00, semi-annually, payable February 1, 1946, to holders of record December 31.

Norfolk & Western.—Adj. preferred, $1.00, quarterly, payable February 9, 1946, to holders of record January 16, 1946.

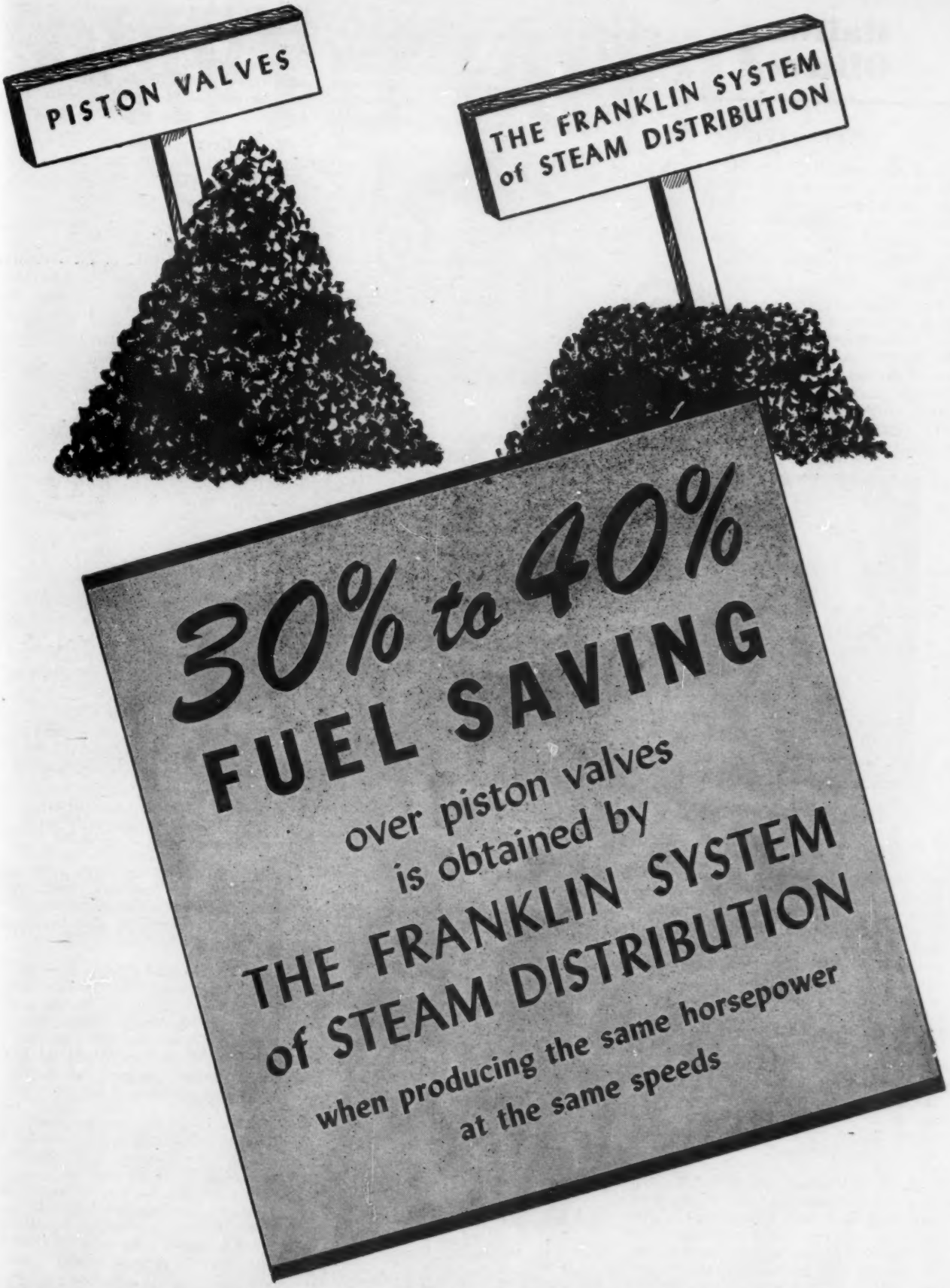
Northern Central.—$2.00, semi-annually, payable January 15, 1946, to holders of record December 31.

Abandonments

CENTRAL OF NEW JERSEY.—After hearing and further consideration, Division 4 of the Interstate Commerce Commission has issued a new certificate authorizing this road's abandonment of two segments of a branch, one of 0.88 mile at East Long Branch, N. J., and one from Highland Beach to East Long Branch, 5.5 miles, thus putting into effect its earlier decision permitting the abandonment, which was revoked on protests of local interests. (Previous item in *Railway Age* of December 8, page 957.)

TEXAS & NEW ORLEANS.—Division 4 of the Interstate Commerce Commission, on petition of the Railway Labor Executives' Association, has extended for an additional two-year period its reservation of jurisdiction with respect to the protection of employees who may be adversely affected by this company's line abandonment as authorized in the Finance Docket No. 14307 proceedings.

News Department continued on next left-hand page



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO • MONTREAL

Railway Officers

EXECUTIVE

E. D. Cotterell, vice-president and general manager, Eastern lines, of the Canadian Pacific at Toronto, Ont., has been appointed vice-president in charge of lines east of Porth Arthur, with headquarters unchanged. This change becomes effective January 1.

Fred L. Schrader, whose election to president of the Chicago & Illinois Midland, with headquarters at Springfield, Ill., was reported in the *Railway Age* of December 15, was born at Creston, Iowa, on January 25, 1891. He entered railroad service in 1908 with the Chicago, Burlington & Quincy at Ottumwa, Iowa. In 1912 he entered the service of Chicago, Peoria

Fred L. Schrader

& St. Louis, and served in various clerical capacities until February 1, 1920, when he was advanced to assistant to the general manager. On March 17, 1926, Mr. Schrader became assistant to the senior vice-president of the Chicago & Illinois Midland at Springfield. And on May 6, 1940, he was advanced to vice-president, the position he held at the time of his recent election to the presidency of the road.

Thomas C. Buchanan and **Robert C. Sproul, Jr.,** have been appointed receivers of the Pittsburg, Shawmut & Northern and associated companies, replacing **John D. Dickson.** Mr. Buchanan's headquarters are at 209 Beaver Trust building, Pittsburgh, Pa., and Mr. Sproul's at 625 Fifth avenue, also Pittsburgh.

E. B. deVilliers, whose promotion to assistant vice-president-traffic of the Gulf, Mobile & Ohio, with headquarters at Mobile, Ala., was reported in the *Railway Age* of December 22, was born at Toronto, Ont., on July 23, 1902, and entered railway service in May, 1918, with the Mobile & Ohio (now part of the G. M. & O), as a clerk of the freight department. On March 1, 1920, he became a clerk of the general agent's office of the Louisville & Nashville at Mobile, and in 1922 he was appointed assistant quotation clerk of the Gulf, Mobile & Northern (now the G. M. & O.). Mr. deVilliers subsequently served as rate clerk, division clerk, tariff compiler and chief clerk until January 1, 1930, when he was promoted to assistant general freight agent at New Orleans, La. On September 13, 1940, he was advanced to general

E. B. deVilliers

freight agent, with the same headquarters, holding that position until March 15, 1943, when he was further advanced to freight traffic manager of the Gulf, Mobile & Ohio at Mobile, which position he held at the time of recent promotion.

FINANCIAL, LEGAL AND ACCOUNTING

William A. Wheeler, general representative of the Maine Central and the Boston & Maine at Portland, Me., has retired after 55 years' service.

OPERATING

William C. Fisher, whose appointment as superintendent of stations and transfers of the Pennsylvania at New York was announced in the December 8 issue of *Rail-*

William C. Fisher

way Age, was born in Cumberland, Md., on June 14, 1900. He entered the service of the Pennsylvania as a clerk in June, 1920, advancing to head clerk in 1928. He was appointed agent at Burnham, Pa., in 1934, and transferred to Mount Carbon, Pa., in 1935, then to Newark, Ohio, in 1937. Mr. Fisher became supervising agent, Williamsport division and Wilkes-Barre division, in February, 1939, and in 1940 went to Jamaica, N. Y., to serve in the same capacity with the Long Island, which post he maintained until his recent promotion.

N. R. Crump, assistant general manager, Eastern lines, of the Canadian Pacific at Toronto, Ont., has become general manager, Eastern lines, there.

Richard Warren Grigg, division engineer of the Long Island, has been promoted to superintendent of the Delmarva division of the Pennsylvania, with headquarters at Cape Charles, Va., succeeding **L. G. Walker, Jr.**

Harry R. Adams, whose retirement as superintendent of the Erie at Jersey City, N. J., was announced in the December 22 issue of *Railway Age,* was born in 1879 at Columbus, Ohio. He entered railroading with the Erie in 1896 as boilermaker helper at Chicago. He served there also as machinist helper, brakeman and conductor, and trainmaster. In 1916, he became assistant superintendent, Ken division, and was promoted to superintendent there in 1918. He was advanced to assistant general manager, Western district, in 1927, and transferred to Eastern district in 1929. Mr. Adams then became superintendent, serving at the Wyoming division beginning in 1932; at the New York Terminal, New York, in 1934; returning to the Wyoming division in 1936; at Salamanca, N. Y., in 1938; and subsequently at the Jersey City headquarters, the post from which he has retired.

TRAFFIC

H. Manley Cobb, division freight agent of the Southern at Asheville, N. C., will retire on January 1 after 52 years of railroad service.

J. R. Scott, who has been in the armed services for the past three years, has resumed his position as general agent of the Kansas City Southern, with headquarters at Seattle, Wash.

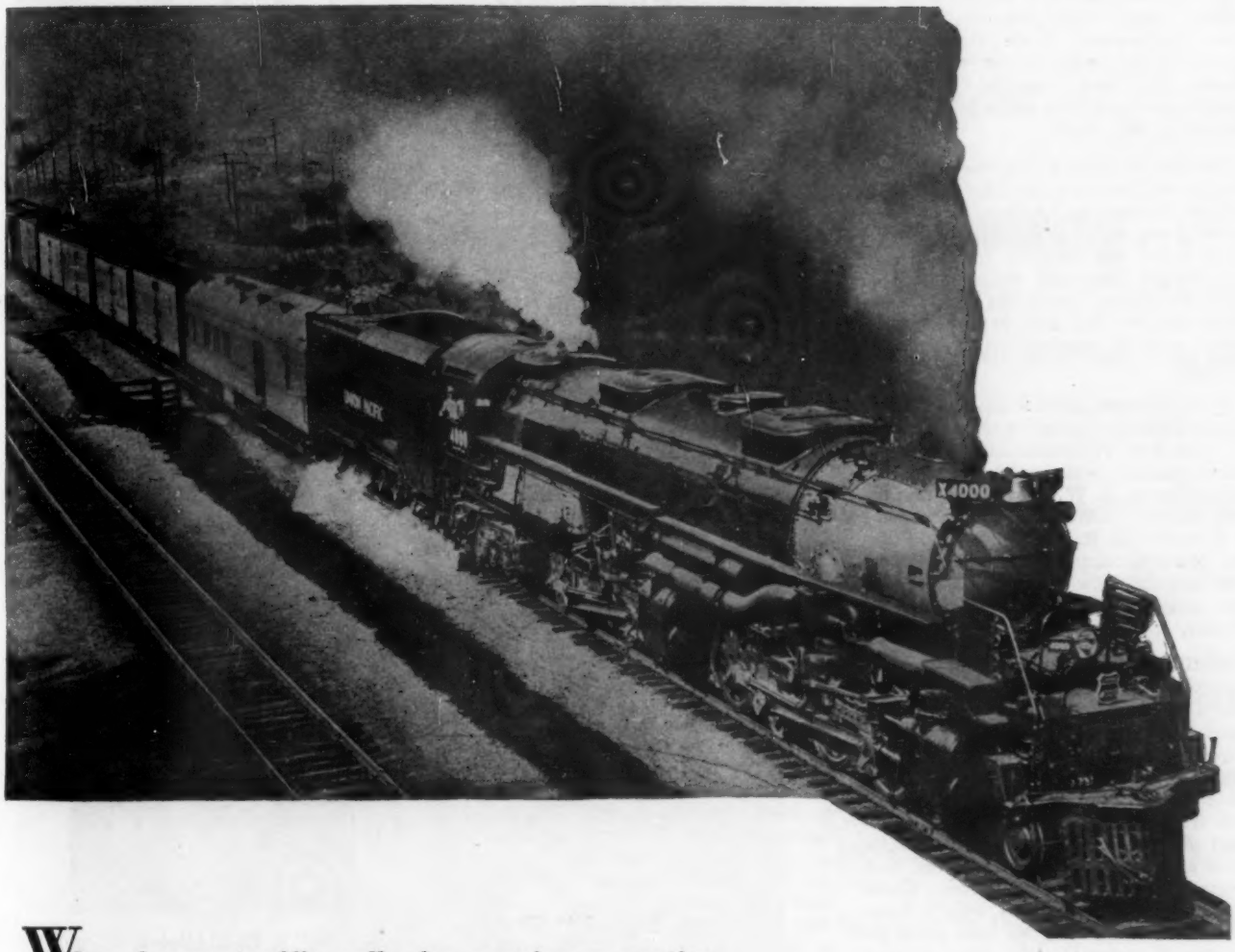
H. W. Hanes has been appointed general agent of the Grand Trunk at Detroit, Mich., succeeding **F. H. Rowe,** who has retired after more than 28 years of service. **M. A. O'Brien** has been appointed division freight agent at Grand Rapids, Mich. **R. R. Parrish** has been appointed general agent at South Bend, Ind.

U. E. Lloyd has been appointed general agent of the Denver & Rio Grande Western, with headquarters at Pittsburgh, Pa., succeeding **J. T. Neison,** who has retired after more than 40 years of service. **R. E. Davis** has been appointed general agent at Oakland, Cal., succeeding **A. W. May,** who has retired on account of illness after more than 20 years of service.

William R. Belfield, assistant general freight agent of the Southern at Augusta, Ga., will be promoted to assistant general freight agent at Columbia, S. C., on January 1, succeeding **A. S. Eggerton,** who retired several months ago. **Howard**

News Department continued on next left-hand page

HEAVY TRAFFIC



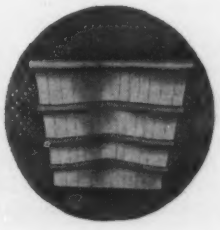
When heavy traffic calls for maximum motive power efficiency, the locomotive must be kept in condition to get full value from every ton of coal burned.

To do so, it is essential to maintain a complete brick arch in the firebox at all times.

For thirty-six years, on all types of locomotives, Security Sectional Arches have been giving long service at low maintenance costs.

needs unrestricted power

HARBISON-WALKER REFRACTORIES CO.
Refractories Specialists



AMERICAN ARCH CO. INC.
60 East 42nd Street, New York 17, N. Y.
Locomotive Combustion Specialists

Cook, division freight agent at Greenville, S. C., will become assistant general freight agent at Augusta, succeeding Mr. Belfield, on January 1.

T. K. Earley, general freight agent of the Denver & Rio Grande Western at Denver, Colo., has been promoted to assistant freight traffic manager, with the same headquarters. **J. G. Simpson,** assistant to the freight traffic manager at Denver, has been promoted to general freight agent, with the same headquarters, succeeding Mr. Earley.

Charles C. Correll, formerly district freight and passenger agent for the Southern at Shreveport, La., has recently returned from service as major in the United States Army and has been appointed division freight agent of the Southern at Knoxville, Tenn., succeeding **P. H. McWhorter,** who has been promoted to assistant general western freight agent at Chicago.

A. C. Linton, general passenger agent of the Illinois Central at New Orleans, La., has been appointed acting passenger traffic manager, with headquarters at Chicago, relieving **J. W. Stevenson,** who has been granted a leave of absence on account of ill health. **G. R. Kimbel,** assistant general passenger agent at Chicago, has been transferred to New Orleans as acting general passenger agent during Mr. Linton's absence.

William Jardine, assistant general freight agent of the Southern at Washington, D. C., has been appointed general agent of the freight department at Philadelphia, Pa. **R. Stanley Souther,** New England freight agent at Boston, Mass., succeeds Mr. Jardine as assistant general freight agent at Washington. **Roland A. Davis,** general eastern freight agent at New York, has been named New England freight agent at Boston. **Clyde C. Cox,** assistant general freight agent at New Orleans, La., has been promoted to general eastern freight agent at New York. **Sidney W. Beacham,** division passenger agent at New Orleans, has been advanced to assistant general freight agent there, succeeding Mr. Cox. All these changes will become effective January 1.

George H. Dumas, a member of the Western Classification Committee at Chicago, has been promoted to chairman of that committee, succeeding **R. C. Fyfe,** who has retired after 57 years of railroad service. Mr. Dumas was born at Escanaba, Mich., and entered railroad service in 1913 as a clerk of the freight office of the Chicago & North Western at Escanaba. On January 1, 1917, he was transferred to the office of the general agent at Houghton, Mich., and in the same year he was advanced to agent, with headquarters at Iron River, Mich. Mr. Dumas became traveling agent, with headquarters at Indianapolis, Ind., on August 25, 1920, and on June 1, 1935, he was promoted to coal agent at Chicago. On June 1, 1938, he was advanced to assistant general freight agent and two years later he became general freight agent, with the same headquarters. He resigned from the North Western on June 1, 1945, to take the position he held at the time of his new appointment.

Ernest L. Billingsley, whose promotion to general freight agent of the Texas & Pacific, with headquarters at Dallas, Tex., was reported in the *Railway Age* of December 1, was born at Dimebox, Tex., on February 10, 1883, entered railroad service in the accounting department of the Texas & Pacific at Dallas in 1902, and transferred to the traffic department in 1906. In 1921, Mr. Billingsley was advanced to assistant general freight agent, the position he held at the time of his recent promotion.

Ernest L. Billingsley

The Chicago, Burlington & Quincy has announced the following year-end changes in its traffic department: **G. R. Glover,** assistant general freight traffic manager at Chicago, has been promoted to assistant to the vice-president-traffic, with the same headquarters. **E. T. Parks,** general freight agent at Chicago, has been advanced to assistant general freight traffic manager, with the same headquarters, succeeding Mr. Glover. **R. E. Barr,** general agent at Minneapolis, Minn., has been promoted to general freight agent, with headquarters at Chicago, where he replaces Mr. Parks. **H. H. Moench,** city freight agent at Chicago, has been moved up to general agent at Minneapolis, Minn., relieving Mr. Barr. **F. J. Conrad,** assistant freight traffic manager at Chicago, has been promoted to freight traffic manager lines West, with headquarters at Omaha, Neb., a newly created position. **F. E. Deines,** acting general freight agent at St. Louis, Mo., has been promoted to assistant freight traffic manager at Chicago, replacing Mr. Conrad. **F. F. Crabbe,** executive general agent at Washington, D. C., has been advanced to general freight agent at St. Louis. **A. G. Matthews,** general agent at Detroit, Mich., has been transferred to Washington, D. C. **L. J. Kelly,** who has been serving with the armed forces, has been appointed general agent at Detroit, succeeding Mr. Matthews. **S. J. Sienko,** live stock agent at Omaha, has been promoted to general agent, with the same headquarters, succeeding **R. E. Hayward,** who has retired after 54 years of service. **C. J. Rohwitz,** assistant freight traffic manager at Omaha, has retired after 49 years of service. **P. G. Bohlsen** has been appointed assistant general freight agent at Chicago.

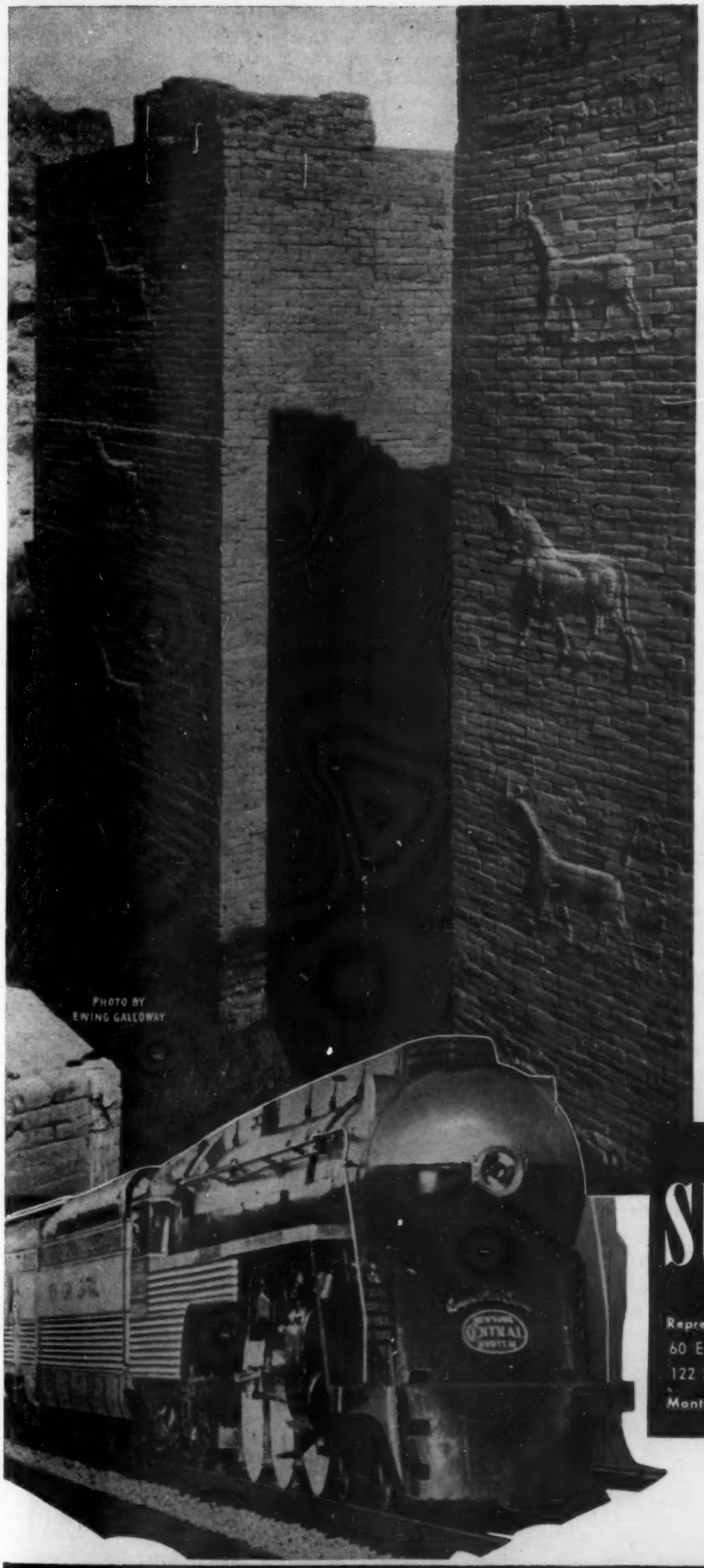
ENGINEERING & SIGNALING

R. J. Middleton, whose promotion to chief engineer of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of November 24, was born near Greenwood, Ark., on September 29, 1881, and received his higher education at the University of Arkansas. He entered railroad service on February 2, 1906, as a draftsman in the bridge and building department of the Milwaukee in Chicago. From October, 1906, to October, 1908, he was assistant engineer on bridge and building work at Ottumwa, Iowa; and from the latter date to December, 1910, he served in the same capacity on the Evanston track elevation, at Evanston, Ill. During the years 1911 and 1912, he served as assistant engineer in charge of construction of yard and engine terminals at Bensenville, Ill., and Savanna; and, subsequently, for the years 1913 to 1915, he was engineer of track elevation at Chicago. From 1916 to June, 1918, he was valuation engineer for the Milwaukee system at Chicago. On June 15, 1918, Mr. Middleton was promoted to assistant chief engineer, lines west of the Missouri River, with headquarters at Seattle, Wash., in which capacity he served until March 1, 1933, when another advancement made him assistant chief engineer of the system at Chicago, the position he held at the time of his recent promotion to chief engineer.

R. J. Middleton

Frank P. Turner, whose retirement as principal assistant engineer of the Norfolk & Western at Roanoke, Va., was announced in the December 8 issue of *Railway Age,* was born near Christianburg, Montgomery County, Va., on November 16, 1874. After being graduated from Virginia Polytechnic Institute, he became an instructor in mathematics there for two years, entering railroad service in 1899 on a special survey for the Norfolk & Western. He then served with the Virginia & Southwestern (now Southern) as draftsman and instrumentman from 1899 until 1901. Mr. Turner entered the regular service of the Norfolk & Western in 1901 as inspector of masonry in the Durham and Winston-Salem districts. During the next ten years, he was

News Department continued on next left-hand page



Fundamentally Correct

Engineering...

is successful, whether it be the gate of Ishtar, in ancient Babylon...or underlies the design of modern steam locomotives.

Elesco has contributed much to the advance of the steam locomotive and will continue to do so in the years ahead.

THE
SUPERHEATER
COMPANY

Representative of AMERICAN THROTTLE COMPANY, INC.
60 East 42nd Street, NEW YORK
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ELESCO
Montreal, Canada, THE SUPERHEATER COMPANY, LTD.

A-1756

Superheaters • Superheater Pyrometers • Exhaust Steam Injectors • Steam Dryers • Feedwater Heaters • American Throttles

assistant engineer in charge of such projects as double tracking in West Virginia and Ohio, rebuilding draw-bridges at Norfolk, Va., and supervising the rebuilding of the Ohio river bridge at Kenova, W. Va. In May, 1913, Mr. Turner was promoted to acting bridge engineer at Roanoke, and a year later advanced to bridge engineer. On January 1, 1924, he was appointed principal assistant engineer.

Harry F. Smith, whose appointment as bridge engineer of the Norfolk & Western at Roanoke, Va., was announced in the December 8 issue of *Railway Age,* was born at Clifton Forge, Va., on November 19, 1898. He was graduated from the Virginia Polytechnic Institute in 1923 as a Bachelor of Science, civil engineering, and began his railway career in June, 1923, as a rodman with the Norfolk & Western. In October, 1923, he became inspector at

Harry F. Smith

Roanoke, transitman there in June, 1924, and draftsman in September, 1924. Mr. Smith was advanced to resident engineer, Roanoke, in 1935, and crossing engineer in 1941, at the same headquarters. He was appointed assistant engineer, Eastern general division, there in 1943, and maintained this post until his recent promotion.

PURCHASES AND STORES

L. C. Thomson, manager of stores of the Canadian National at Montreal, Que., has returned to that post after five years' service with the Canadian government.

C. E. Swanson, traveling storekeeper of the Chicago, Burlington & Quincy, who has been acting general storekeeper since January, 1945, has been promoted to assistant general storekeeper with headquarters at Chicago.

SPECIAL

Dr. Fuller Nance, assistant to medical and surgical director of the Baltimore & Ohio at Baltimore, Md., has been appointed medical and surgical director there, succeeding the late **Dr. E. V. Milholland.**

John S. Gorby, formerly Naval air traffic coordinator in the Pacific forward area, has returned to Railway Express as superintendent of public relations. Mr. Gorby joined Railway Express in 1933 as publicity representative for the air express division. In 1935 he became managing editor of the Express Messenger, house organ of the agency. He was appointed assistant

John S. Gorby

to the general sales manager in 1942, and left to enter the United States Navy in October of that year.

The Canadian Pacific has announced the reorganization at Montreal, Que., of its general publicity office and press bureau into a department of public relations, taking in the exhibits and publicity branches of the department of immigration and colonization and adding a new reports branch. **J. H. Campbell,** general publicity agent, has been appointed manager of the department. **J. E. March,** assistant in the press relations bureau, has become assistant manager in charge of press relations, and **D. B. Wallace,** special representative, assistant manager in charge of special services. Press relations officers have been named at various headquarters: **J. W. Merkel,** Saint John, N. B.; **J. W. Maunder,** Montreal, Que.; **Marc T. McNeil,** Ottawa, Ont.; **Percy T. Cole,** Toronto, Ont.; **H. T. Coleman,** Winnipeg, Man.; **John R. Sturdy,** Vancouver, B. C.; and **C. W. Stokes,** London, England. At Montreal, **R. J. O'Leary** has been placed in charge of the reports branch, while in special services **W. L. Payne** has been appointed director of the motion picture and speakers bureau, **E. T. Noltie,** director of the display division, and **W. T. McFarlane,** advertising supervisor.

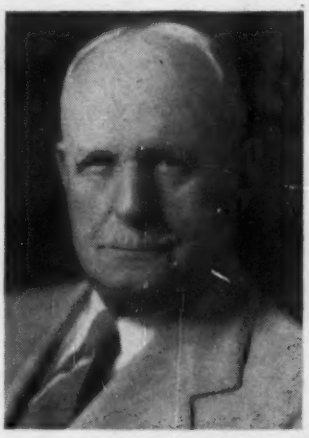
OBITUARY

A. B. Wilson, superintendent of motive power of the Southern Pacific, with headquarters at Sacramento, Cal., died at his home in that city on December 16.

J. F. Dyas, who retired in 1942 as general agent, passenger department, of the New York Central, with headquarters at Omaha, Neb., died at his home in that city on December 15.

James F. Lord, assistant general manager of the Chicago & Eastern Illinois at Chicago, whose death on December 14, was reported in the *Railway Age* of December 22, was born at Evansville, Ind., on September 14, 1883, entered railroad service in October, 1899, as a brakeman on the Southern and subsequently served with the Illinois Central for two years. In July, 1908, he entered the service of the Chicago & Eastern Illinois, and served in various minor positions until March 1, 1919, when he was advanced to supervisor of safety and fire protection at Evansville, Ind. In 1922 Mr. Lord was promoted to assistant to the general manager at Chicago and served in that capacity until 1941, at which time he was further advanced to assistant general manager, the position he held at the time of his death.

Frank G. Jonah, chief engineer of the St. Louis-San Francisco, with headquarters at St. Louis, Mo., whose death on December 7 was reported in the *Railway Age* of December 15, was born in Albert County, New Brunswick, on October 6, 1864. He entered railroad service in May,



Frank G. Jonah

1882, as a student in the office of the chief engineer of the Inter-colonial (now Canadian National) and served in various capacities until 1890, when he became assistant engineer with the St. Louis Merchants Bridge Terminal Railway. From April, 1894, to December, 1899, he was resident engineer of the St. Louis, Peoria & Northern (now the Illinois Central); and from December, 1899, to May, 1901, he served as engineer maintenance of way for the Chicago & Alton. Between 1901 and 1905 Mr. Jonah served in the following capacities: May, 1901, to March, 1903, as chief engineer of the Blackwell, Enid Southwestern (now part of the Frisco); March, 1903, to June, 1903, as assistant engineer of the New Orleans Terminal Co.; June, 1903, to October, 1904, as chief engineer of the St. Louis & Brownsville & Mexico; October, 1904, to May, 1905, as locating engineer of the St. Louis & San Francisco (now the Frisco). In May, 1905, he returned to the New Orleans Terminal Co., as terminal engineer, and served in that capacity until January 1, 1910, when he became chief engineer of construction of the St. Louis & San Francisco at St. Louis. From March 1, 1913, to June 7, 1917, he was chief engineer for the same road. During World War I, he was a major in the 12th Engineers and later chief engineer of the department of light railways in France. Returning to the Frisco in 1920 as chief engineer, he served in that capacity until the time of his death.

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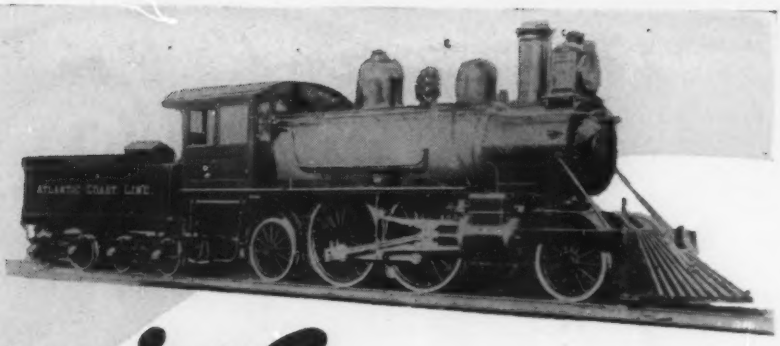

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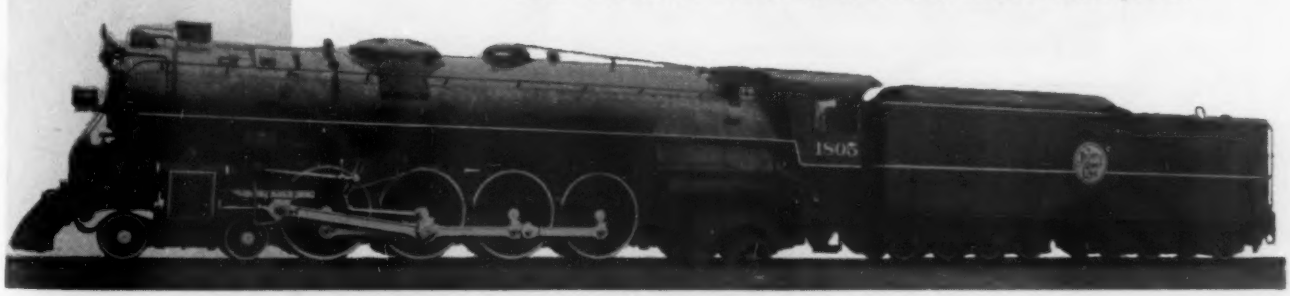

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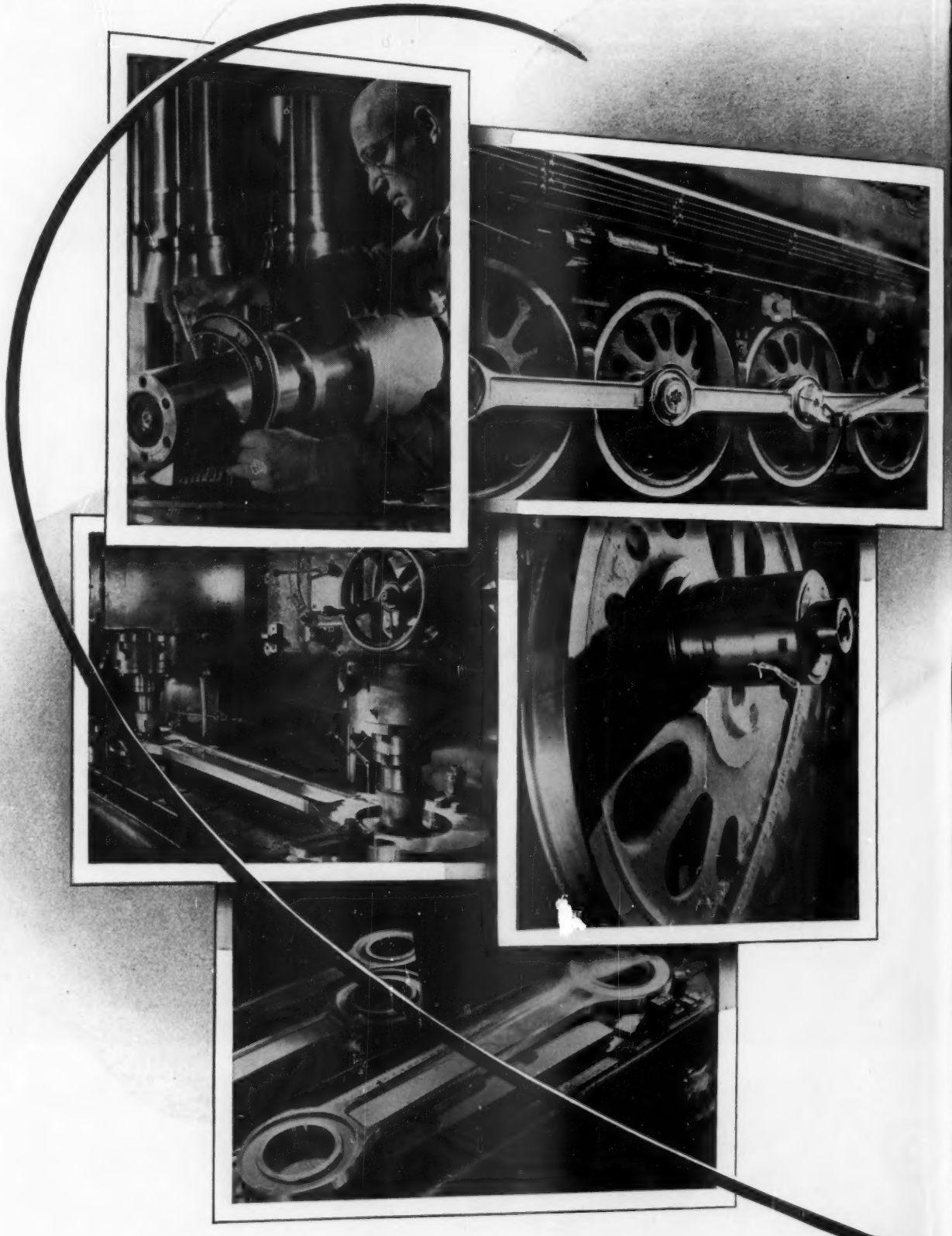

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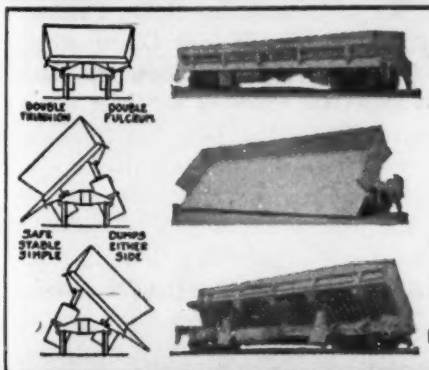

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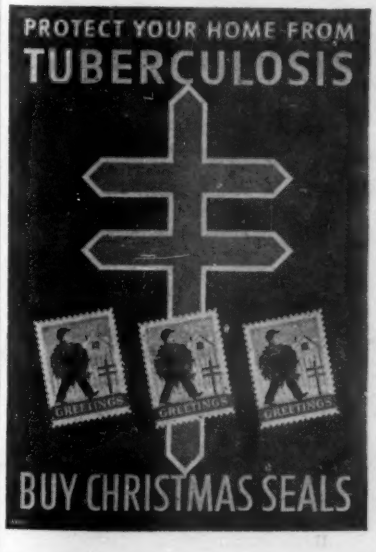

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Index to Advertisers

December 29, 1945

A

American Arch Co., Inc. 29
American Locomotive Company 6, 7, 32, 33
American Steel Foundries 9
American Welding & Manufacturing Co., The 8

B

Baldwin Locomotive Works, The ..... Front Cover
Blaw-Knox Division of Blaw-Knox Company 35
Bruning Company, Charles, Inc. 5

C

Carey Co., Inc., Thomas F. 37
Classified Advertisements 37
Colgate Aircraft Corporation 4
Communications Company, Inc. 16

D

Differential Steel Car Company 35

E

Evans Products Company 2

F

Franklin Railway Supply Company, Inc. 28

G

General Electric Company 6, 7
General Railway Signal Company ..... Back Cover
Get Together Department 37
Gold Car Heating & Lighting Co. 37

H

Hunt-Spiller Mfg. Corporation 31
Hyman-Michaels Company 35

I

Inland Steel Company 3
Iron & Steel Products, Inc. 37

L

Lake Erie Engineering Corporation 20
Lima Locomotive Works, Incorporated 27

N

National Bearing Division, American Brake Shoe Company 11
National Malleable and Steel Castings Co. 39
Nelson Sales Corporation 19

O

Ohio Locomotive Crane Company 37
Okonite Company, The 35
Oliver Iron and Steel Corporation 21

P

Pittsburgh Steel Foundry Corporation 26

R

Railway Educational Bureau, The 37
Railway Maintenance Corp. 17
Republic Steel Corporation 14

S

Schaefer Equipment Company 15
Silvercote Products, Inc. 12, 13
Simmons-Boardman Publishing Corp. 36
Sonken-Galamba Corp. 37
Superheater Company, The 30

T

Timber Structures, Incorporated 18
Timken Roller Bearing Company, The 10
Truscon Steel Company, Subsidiary of Republic Steel Corporation 14

U

Union Switch & Signal Company 24

W

Westinghouse Air Brake Company 22

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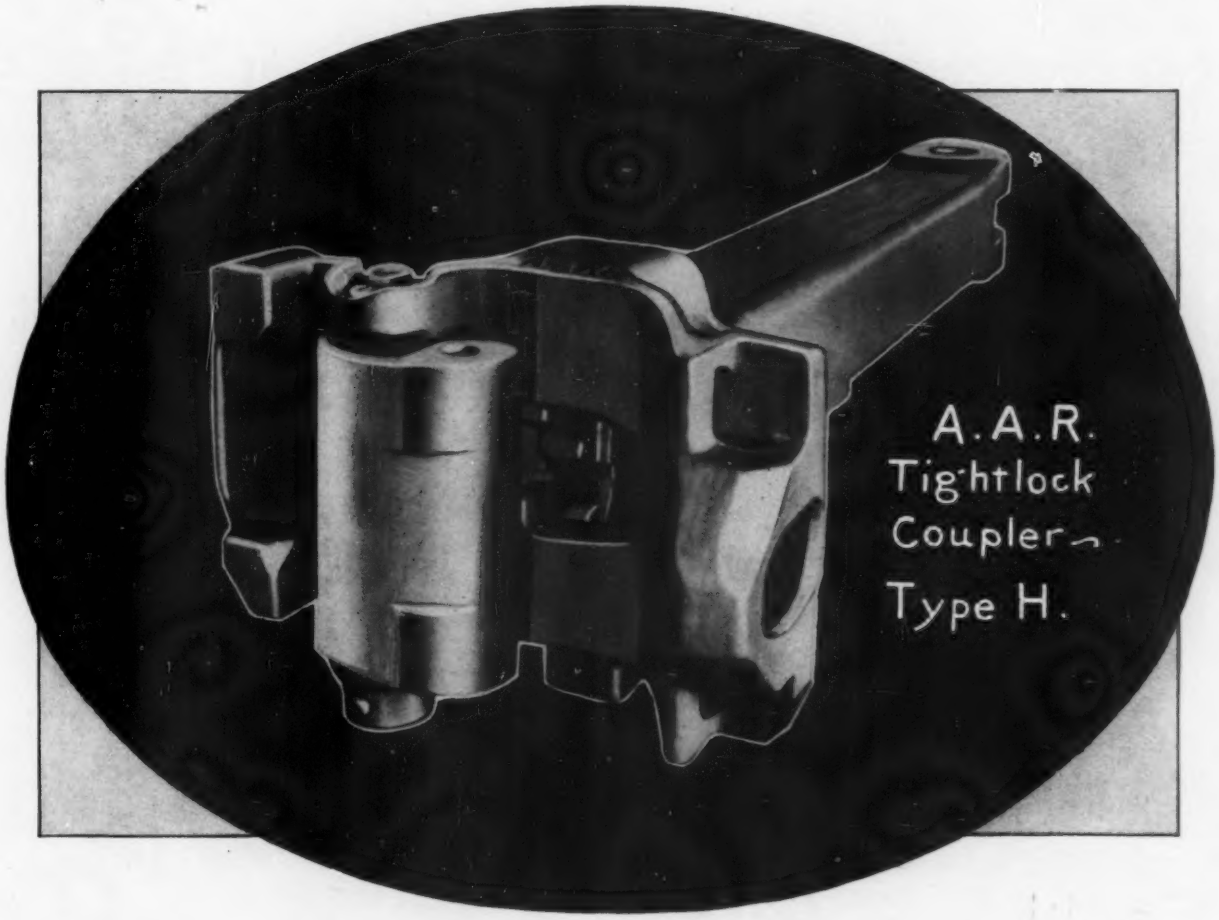

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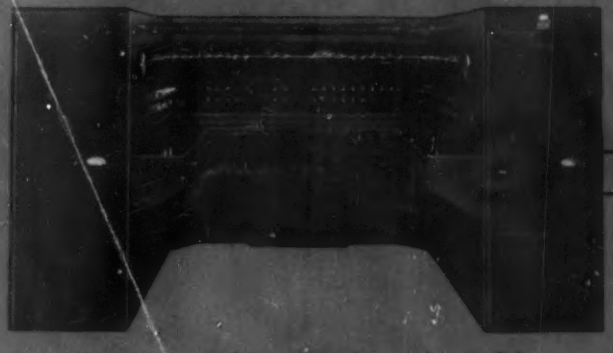

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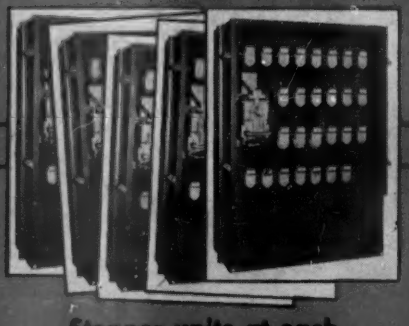

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Index

One Hundred and Nineteenth Quarto Volume

July 1, 1945, to December 31, 1945

Ninetieth Year
1945
Second Half

The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

INDEX

One Hundred and Nineteenth Quarto Volume——July 1, 1945 to December 31, 1945

AUTHORS

Biggs, John D., 984
Bingham, Col. Sidney H., 865
Bjorkholm, J. E., 901
Blair, J. F., 333
Bryant, Charles B., 5, 289

Capehart, Sen. Homer E., 692
Carter, J. E., 867
Clark, Tom C., 1001
Cohen, Emanuel B., 833
Conn, Donald D., 529

Dunn, Samuel O., 58, 858
Dutton, L. W., 754

Edgar, Robert M., 613
Ennis, Dr. Joseph B., 970

Fletcher, R. V., 8
Foote, F. D., 566
Frederick, John H., 66
Friedman, Elisha M., 980

Gaffney, F. A., 656
Garstang, William W., 854
Goodyear, Clare J., 654
Gray, Brig. Gen. Carl R., Jr., 329
Grieve, G. G., 754
Gross, Maj. Gen. C. P., 215
Gurley, Fred G., 556

Harrison, George M., 9, 376, 553
Hunter, Leroy L., 609

Jackson, William K., 567
Jeffers, William M., 1056
Johnson, Col. J. Monroe, 452, 680, 985, 990
Johnston, Wayne A., 644
Jordan, Virgil, 255

Kelly, Walter, 757
Kendall, W. C., 599
Kessel, Wm. C., 867
Knowles, A. M., 199
Krampf, L. P., 13

Lastayo, Brig. Gen. Edward H., 1055
Lea, Clarence F., 933
Luce, Clare Booth, 32

Metalitz, Stanley, 414
Metzman, Gustav, 598
Morrison, R. W., 338
Mottier, C. H., 1017

Orr, L. F., 371

Parkes, Holcombe, 1053
Pegler, Westbrook, 646
Pelley, J. J., 568, 721, 873, 947, 1058
Pettengill, Samuel B., 868, 912
Plowman, E. G., 653
Prange, Maj. Herbert L., 107, 527

Raymond, A. A., 941
Richardson, Lt. Col. M. B., 296
Richberg, Donald R., 117
Romney, George, 905
Roper, G. K., 65

Saunders, H. H., 443
Schmidt, Capt. William H., 375, 713
Scott, W. R., 414
Sherrington, C. E. R., 1025
Siddall, H. W., 905, 1058
Silbermann, Joachim, 1020
Smith, Elmer A., 208
Spence, Paulsen, 304
Stevenson, Maj. William D., 338
Sturdevant, W. L., 255
Sumners, Hatton W., 986
Symes, James M., 1028

Thom, Col. Krauth W., 206
Totten, A. I., 605
Triem, W. R., 368

Wallace, W. K., 560
Wason, R. R., 1013
Wenner, B. H., 479
White, William, 834, 997
Whitney, A. F., 66
Wicker, W. S., 856
Wilson, G. Lloyd, 95, 140, 411, 488, 750, 1025
Wyer, William, 254, 479, 564

Zane, W. F., 330

For the convenience of subscribers who do not bind the RAILWAY AGE, the inclusive page numbers of each issue from July 7 to December 29, 1945, are shown below:

July 7	1-50
July 14	51-90
July 21	91-128
July 28	129-194
August 4	195-240
August 11	241-280
August 18	281-318
August 25	319-354
September 1	355-396
September 8	397-430
September 15	431-470
September 22	471-508
September 29	509-544
October 6	545-588
October 13	589-632
October 20	633-668
October 27	669-704
November 3	705-738
November 10	739-776
November 17	777-844
November 24	845-884
December 1	885-924
December 8	925-966
December 15	967-1010
December 22	1011-1042
December 29	1043-1078

GENERAL INDEX

[Illustrated articles are indicated thus; Editorials thus†; Letters to Editor thus‡]*

A

AB Air Brakes (See Brakes, Air)
Abandonments:
Careful Study Needed Before Making, 320†
C. of N. J. Offers Vacated Stations as Community Centers, 909
C. & N. W. Retires Obsolete Properties, 285*, 323*
Conditions for Protection of Employees Interpreted by I. C. C., 582
Academy of World Economics: Post-War Technological Problems, 5
Accident Prevention:
Dragging Equipment Detectors on P. R. R., 368*
Mars Figure-Eight Oscillating Red Warning Lights, 1024*
Shops and Enginehouses; National Safety Council Report, 740†, 754*
Value of Good Lighting in, 969†, 989
Accidents:
A. T. & S. F. Collision at Franconia, Ariz., 695
A. T. & S. F. "Grand Canyon Limited" Collision, 343
A. B. & C. Collision Near Talbotton, Ga., 421
A. C. L. Derailment at Walthourville, Ga., 77
A. C. L. Derailment Near Kissimmee, Fla., 45
B. & O. Collision at Philippi, W. Va., 577
C. St. P. M. & O. Collision at Worthington, Minn., 876
C. C. C. & St. L. Track Car Collision at Gard, Ill., 913
G. N. "Empire Builder" Collision at Michigan, N. D., 313, 532, 837
G. N.-S. P. & S. Collision at Willbridge, Ore., 229
H. & M. Drawbridge Collision, 1026
I. C. C. Statistics for May, 117; June, 314; July, 499; August, 659; September, 839; October, 1002
M. C. Collision at Eaton Rapids, Mich., 313
M. P. Collision Near Plumerville, Ark., 422
N. Y. C. "Advance Commodore Vanderbilt," 870
N. P. Collision at Prosser, Wash., 728
P. R. R. Collision Near Milton, Pa., 230
St. L.-S. F. Collision Near Custer City, Okla., 422
S. A. L. Collision at Kollocks, S. C., 1031
S. A. L. Collision near Richland, Ga., 532
Southern Collision at McGriff, Ga., 268
Southern Collision at Montview, Va., 268
Thoughtfulness in Emergencies, 4†
Wabash Collision at Wabash, Ind., 76
Accounting:
Depreciation (See Depreciation)
How to Improve the Service of the Accounting Department, 333
I. C. C. Classification Modified, 313, 763
I. C. C. Order on Revenue Account for Protective Service-Perishable Freight Again Postponed, 41
K. C. S. Merger Accounting Report, 45, 657
Post Driving: I. C. C. Reopens Case, 263
Railway Accounting Rules, 1945 Edition, 619
Uniform, Recommended for Canadian Roads, 765
Accounting Department, Toward a More Useful, 333
Administrative Procedure Modification Bills Opposed by I. C. C., 46
Advertising:
A. A. R. Handled by Benton & Bowles, 569
C. & O. Employment Series, 341, 461, 586, 961
I. C. Completes 25 Years of Public Relations Advertising, 723*
L. & N. Invites Public Confidence, 581
Railroads Win Top Rating in Transportation Advertisements, 310
Southern Publicizes Its Campaign for the South, 225
Advertising Research Foundation, Inc.: Railroads Win Top Rating in Transportation Advertisements, 310
Agreed Charges, Canada's Experience with, 750, 1025‡ (Correction)
Air Brakes (See Brakes, Air)
"Air-Conditioned" Cabs, 968†
Air Conditioning: Vapor Zone Control, 165
Air Cylinder, Hanna Glide-Ride, 903*
Air Express Rates Cut, 906
Air Traffic:
Air Express Traffic, 426
Nine Ton Freight Shipment to West Coast, 182
Potential Air Freight in New York-New Jersey Area Studied, 906
Transcontinental Freight Service Begun, 451
Air Transport Association of America:
Air Express Rates Cut, 906
Airline Operations in 1945, 1060
Airline Ticket Simplified, 225
Airlines Plan Convenient Ticket Outlets, 689
Cargo Capacity, More, Planned by Airlines, 182
"Grass Roots" Educational Program Begun, 835
Postwar Air Services Previewed, 73
Shippers Research Division Formed, 1029
Air Transportation:
Aviation Policy, 321†; L. F. Orr on, 373
Bill Proposes Study Board Investigation, 952
Cargo Capacity, More, Planned by Airlines, 182
CAA to Get "Increased Support" from the Department of Commerce, 534
Expansion of, Senate Resolution for, 232
Intrastate Regulation Discussed by State Commissioners, 985
Pelley Nails a Canard, 873, 886†
Perishable Handling; Col. L. H. Brittin on, 42
Perishable Shipments, Will Public Pay for?, 877
Postwar Plans for, 73
Priorities for Short Trips Banned, 110
Priorities to End Soon, 423
Troop Movements Inaugurated, 379
Aireon Manufacturing Company: I. C. Tests Train Communication Systems, 226, 742*
Airfoam, Synthetic, 165*
Airlines:
Fares Reduced, 448*
Federal Aid Swells Profits of, 416
"Grass Roots" Educational Program, 835
Operations in 1945, 1060
Ordered to Share Eastbound Troop Load, 875
Ticket Outlets, Convenient, Planned, 689
Tickets Simplified, 225
Airport Development:
Bills for Financing of, 43, 499, 693
Subsidies for, 633†
Airport for Slater, Mo., An, 633†
Alabama, Tennessee & Northern: Reorganization Expenses, 1037
Alleghany Corporation: Seeks Combined M. P.-C. & O. Coast to Coast Service, 997
Allegheny Ludlum Steel Corporation: Postwar Research and Expansion Program, 460
Allied Van Lines, Inc.: I. C. C. Proposed Report Would Approve Acquisition of Certificates of More Than 300 Agents, 1064
Alton:
Decisions Refusing Creditor Permission to Intervene in Road's Petition for Bond Issue to be Appealed, 379
Merger with G. M. & O. Approved by I. C. C., 513*, 956
Passenger Equipment on Order, 824
Trains Restored to Service, 722
Aluminum Alloy Refrigerator Car to be Built by I. C., 266
Aluminum Box Car, C. P. R., 265*
Aluminum Costs; F. D. Foote on, 566‡
Aluminum, More Uses for, 591†
Aluminum Tank Car Gives Record Service, 404*
American Airlines, Inc.: Nine Ton Shipment Flown to West Coast, 41, 182
American Association of Railroad Superintendents: Committee Reports Grapple with Operating Problems, 523*
"American Aviation" Says I. C. C. is "Railroad-Dominated," 654
American Brake Shoe Company: Device to Control Slippage of Locomotive Driving Wheels, 164*
American Car & Foundry Company:
Annual Report, 187
Backlog of Orders Held by, 425
Cars, Passenger, New Types of, 326*, 795*
Chinese Transportation Men Visit Plant, 343*
"Slumberliner" Coach, 326*
American Express Company:
To Represent New York Central Abroad, 610
Travel Training Course Given by, 724*
American Iron and Steel Institute: Rail Production in 1944, 604
American Locomotive Company:
Beaumont Iron Works Purchased by, 580
Chinese Transportation Men Visit Shops, 66*
Dinner Given to Dr. J. B. Ennis, 970*
Export Orders Delivered and on Hand, 1004
Locomotive, 600-Hp. Diesel-Electric Road and Switching, 115*
N. Y. C. 4-8-4 Niagara Type Locomotive, 480*
Postwar Prospects Surveyed, 388
War-Time Activities Reviewed, 871
American Railway Bridge & Building Association:
One-Day Meeting Held by, 674*
Valuable Asset Indifferently Utilized, 671†
American Railway Engineering Association:
Convention in 1946 Planned, 494
Report on Co-operative Relations with Universities, 107‡, 527‡
Suggestions for Continuing Committee Activities Under Present Difficulties, 244†
Tie Renewal Statistics for 1944, 137*
American Rolling Mill Company:
Functions of Armco Railroad Sales Company Discontinued, 351
Rustless Iron & Steel Corporation Merger With Proposed, 580
Zinc-Coated Steel, 165*
American Society for Testing Materials: One-Day Meeting Held, 11*
American Society of Mechanical Engineers:
Annual Meeting, 725, 760
Burning Coal in Locomotives, 941*
Officers for 1945-46 Nominated, 264
Railroad Division Members Honored by, 1060
Railroad Division Officers Elected, 1059
American Trucking Associations:
Class Rate Case Rehearing Denied, 497, 573, 762
Motor Truck Traffic: May, 42; June, 225; July, 418; August, 568; September, 725; October, 947
American Welding Society: One-Day Business Meeting Held by, 312, 655
American Wood Preservers' Association:
Tie-Handling Equipment Survey, 691
Wood Preservation Statistics for 1944, 642*
Amortization of War Emergency Railroad Facilities Can Now Be Speeded Up, 620; Earnings Distorted by, 837, 1001; Questions Answered Concerning, 1034
Ann Arbor: I. C. C. Report on C. & N. W. Terminal Charges at Manitowoc, 314
Annual Report, Making Friends with the, 1020*
Anti-Trust Case Against the Railroads:
Capehart, Sen., Answers "Malevolent Misstatements," 692
Court Refuses to Dismiss, 529
Government Files Bill of Particulars, 691, 946
Smith, E. A., on Theories Expressed in A. C. Wiprud's Book, 208, 413‡
Wisconsin State Journal Comment: C-A-I-C, 132
Anti-Trust Cases:
Georgia, 310, 576, 1001, 1034
Pacific Coast Bus "Monopoly," 693
Pullman, 370, 425, 721, 758, 831 (History of), 934, 993, 1026, 1059
Westinghouse Electric and General Electric, 619
Anti-Trust Law, Rate-Making and the, 208, 413‡
Anti-Trust Laws, Legislation to Remove Carrier Pacts from, 535, 616, 657, 693, 874, 999
Apprentice Training, Time to Revive, 398†
Arbitration Committee Report (Mech. Div.), 160
Armco Zincgrip, 165*
Armor Plate Rates Cut and Reparations Awarded, 458; Rate Order Modified, 913
Army (See United States Department of War)
Army Transportation Association: New York Chapter Officers, 70
Asidbar Treatment for Soft Wood, 902
Association of American Railroads:
Accounting Division:
Officers Elected, 42
Railway Accounting Rules, 1945 Edition, 619
Why Railroads' Future is Uncertain, 58
Advertising Handled by Benton & Bowles, 569
Annual Meeting, 947
Anti-Trust Suit Against the Railroads, 132, 208, 413‡, 529, 691, 692, 946
Bureau of Railway Economics:
Statistics on Unit Fuel and Power Consumption of Locomotives, 1943 and 1944, 124, 172
Tie Renewal Statistics for 1944, 137*
Car Service Division:
Canadian Box Cars; Expedited Return Sought, 418
Car Location and Passing Reports Required, More, 37
Car Supply; More Efficient Use Asked, 760
Comparison of Shippers' Estimates and Actual Car Loadings: First Quarter, 266; Second Quarter, 907
Embargo Against Eastbound Carload Freight on Great Lakes Ended, 571
Embargo on Carload Export Freight Consigned to New York, 613, 869
Embargoes at Texas Ports, 690, 722, 836
Mexico, Embargoes on Car Movements to, 347, 417, 869
Military Freight Halted as War Ceases, 306
Railroad Restrictions on Delivery of Cars to Water Carriers, 834, 905 (Correction)
Reconditioning of Auto Cars is Urgent, 416
Reports on Car Supply Situation, 67, 306, 492, 652, 868, 1026
Return of Auto Cars to Home Lines Asked, 836; Restrictions Eased, 907
Return of Cars to Home Roads Urged, 379
Tank Car Section Abolished, 531
Tank Car Slow-Down Deplored, 722
Use of Gondola and Flat Cars for Christmas Trees Urged, 910
Vice-Chairmen, Two, Appointed, 41, 317*, 318
Car Supply; More Efficient Use Called for, 760
Container Research Program Enlarged, 722
Dinner to Honor Col. J. M. Johnson, 869, 990
Directors' Meetings, 36, 37, 229, 568, 722
Engineering Division: Electrical Section Reports, 987*
Equipment on Order and Installed, 116, 342, 495, 655, 869, 1028
Export Traffic in June, 71; July, 307, 341

GENERAL INDEX—Continued

[Illustrated articles are indicated thus; Editorials thus†; Letters to Editor thus‡]*

Association of American Railroads:—(*Continued*)
Freight Claim Division: Claim Payments in 1944, 567
Gormley, M. J., Death of, 627*
Mechanical Division:
Cantley, W. I., Retirement of, 1031*
Circular on Damage to Cars by Heating, 1029
Letter Ballot Results, 836
Members of the General Committee, 146*
Officers, 145*
Report of the Arbitration Committee, 160
Report on Brakes and Brake Equipment, 152
Report on Car Construction, 157*
Report on Couplers and Draft Gears, 149*
Report on Loading Rules, 156
Report on Locomotive Construction, 153*
Report on Lubrication of Cars and Locomotives, 155
Report on Prices for Labor and Materials, 148
Report on Specifications for Materials, 147
Report on Tank Cars, 159
Report on Wheels, 163
Military Transportation Section: July Troop Movement Report, 418
Pelley, J. J., and J. Carter Fort Call at White House, 1027, 1060
Pipe Lines, Government-Owned, Views on Disposal of, 454
Public Opinion Survey, Fifth, 705†, 717*
Public Relations Rated in "Tide" Survey, 227
Purchases and Stores Division:
Activities Reviewed, 3†, 13*
Address of L. P. Krampf, 3†, 13*
Committee Chairmen and Subjects for 1946, 614
Job Isn't Finished for Procurement Officers, 3†, 13*
Meeting to be Held in 1946, 614
Officers and General Committee, 18
Report of the General Committee, 18
Report on Diesel Locomotive Parts, 30
Report on Exchange of Materials, 28
Report on Forest Products, 22
Report on Fuel, 31
Report on Handling Cars of Company Materials, 24
Report on Highway Motor Vehicles, 23*
Report on Inventory and Pricing, 32
Report on Loss and Damage Prevention, 20
Report on Maintenance of Way Materials, 29
Report on Reclamation, 25*
Report on Scrap, 28
Report on Simplification and Standardization, 19
Report on Stationery and Printing, 21
Report on Stores Organization, 31
"Quiz" Book, New, Issued by, 688
Radio Frequency Allocations Explained, 7
Radio General and Operating Rules, 348
Railroad Books Suggested as Christmas Gifts for Children, 947*
Railroad Committee for the Study of Transportation:
Freight Service Questionnaire Sent Out by Traffic Subcommittee, 691
Passenger Traffic Survey Conducted by, 785
Permanent Committee with Rotating Membership Suggested, 472†
Report on Consolidation, 105
"Seeing Eye" for the Industry, A, 669†
Traffic Research Outlined, 40
Refrigerator Car Research Program, 722
Review of Railway Operations in 1944, 1058
Safety Section Posters, 269*, 307*, 581*, 614*
Signal Section:
Committee of Direction Meeting, 603
Report on Economics of Signaling, 603
Treasury Division:
New Edition of Bills of Lading Rules, 529
Tate, A. E., Elected Chairman, 908
W. S. A. Application for Temporary Domestic Water Service Opposed, 419, 453, 497
Associations:
Co-operation Needed Between, 968†
Valuable Asset Indifferently Utilized, 671†
Astra Liner to be Built by General Motors, 179*, 203*, 800*
Atchison, Topeka & Santa Fe:
Album of Photographs Issued by "Trains," 910
Collision at Franconia, Ariz., I. C. C. Report on, 695
Fined for Explosives Rules Violation, 951
"Grand Canyon Limited" Collision, 343
Long Beach Extension, 315, 663; Service Inaugurated, 996
Operation Into St. Louis Approved, 116, 225
Passenger Preferences Surveyed, 530, 788
Radio Systems, AM and FM, Tested, 612*
710th Grand Division Operations, 329
713th Battalion Operations, 305
Atlanta, Birmingham & Coast: I. C. C. Report on Collision Near Talbotton, Ga., 421
Atlantic Coast Line:
Derailment at Walthourville, Ga., I. C. C. Report on, 77
Derailment Near Kissimmee, Fla., I. C. C. Report on, 45
Florida East Coast Merger Plans, 700
Medal of Honor Awarded to J. N. Royal, 457
Atlantic Coast Line:—(*Continued*)
Passenger Equipment on Order, 824
Safety Appeal Made to Employees, 710
Atlantic States Shippers' Advisory Board Meeting, 492, 530, 567, 598
Atomic Bomb Secret, Why Keep the, 765
Atomic Energy for Locomotive Propulsion; Ralph Lucas on, 451
Australia, Conversion of Gages in, 554*
"Authority Issue," 319†
Automobile Rate Case, I. C. C. Report on Reconsideration of, 117, 876
Automotive Trades Steamship Company: I. C. C. Certification Upheld by Supreme Court, 763
Aviation Policy, 321†; L. F. Orr on, 373
Axles, Forged Steel, OPA Raises Prices on, 1032

B

Bacon, William C.: Control of Motor Carriers Authorized by I. C. C., 621
Baldwin Locomotive Works:
Export Business, Large, Expected, 459
S.A.L. 3000-Hp. Diesel-Electric Locomotive, 946
Ballast: Machines for Cribbing, 707†
Baltimore & Ohio:
Coal and Ore Terminal Planned at Toledo, 80, 840
Coal Handling Facilities at Lorain, O., 732
Collision at Philippi, W. Va., I. C. C. Report on, 577
Courtesy Booklet Issued to Employees, 1013†
Financial Adjustment Plan, 48, 120, 504, 539, 879 (Approved by Court)
"Here She Comes"; Don Herold Booklet, 183*; A "Best Seller," 449
Officers Now Serve B. & O. C. T. Also, 122
Passenger Equipment on Order, 825
Passenger Service, Plans to Improve, 732
Radio-Telephone Equipment for New Castle Yard, 377
R. F. C. Relations Questioned by Sen. Wheeler, 310; R. F. C. Reply, 381; 492
Telegraph, F-M Carrier, Installed by, 690
Teletype Service Extended on, 226
Trademark Replaces Swastika on German Locomotive, 449*
Train Schedules Speeded Up, 946
Bankruptcy Act: Elisha Friedman on the Hobbs Bill, 980
Barber-Greene Snow Loader, 931
Barge Grain Rate Proportionals; Operation Delayed, 615
Barges, Wooden, for Oil Movement, ODT Discontinues Use of, 76
Baseball Clubs to Travel by Rail in 1946, 969†
Battelle Memorial Institute: Study of Coal as Fuel for the Gas Turbine, 530
Beacon Milling Company: I. C. C. Decision in Through Routes Case, 182
Beaver-Mahoning Canal Report, A Rate Cut the Aftermath of the, 660
Bell Telephone Laboratories: Microwave Relay System Demonstrated, 761*
Bendix Aviation Corporation:
C. & N. W. Radio Telephone Equipment, 406*
Dual-Frequency Yard Communication Tested in Jacksonville Terminal, 336*
Radio-Telephone Equipment for New Castle Yard Ordered by B. & O., 377
Railroad Landscapes Exhibited by Radio Division, 663
Bengal & Assam, Army Railroading on the, 34*
Bessemer & Lake Erie: Cor-Ten Hopper Cars After Ten Years' Service, 652
Big Inch Pipe Line, Bill to Provide for Continued Operation of, 1034
Bills of Lading Rules, New Edition of, 529
Bingham & Garfield Released by Government, 420
Bituminous Coal Research, Inc.:
Coal as Fuel for Gas Turbine Studied, 530
Locomotive Smoke Consumer and Silencer Developed by, 518*, 670†
Black Market in Tickets: Wheeler Bill to Curb Sales, 44; Lea Bill, 72
Block Signaling (See Signaling)
Blower Valve, T-Z Quick-Acting, 169*
Board of Investigation and Research, Transportation Act of 1940:
Nine Reports to be Printed by Senate, 265
Report on Carrier Taxation, 696
Report on Public Aids to Domestic Transportation, 535
Boilers, Locomotive: Mech. Div. Report on Materials and Construction, 154
Bonds, Convertible, Suggested as Device to Scale Down Debt, 980
Books, Railroad, Suggested as Christmas Gifts for Children, 947*
Boston & Maine:
Passenger Equipment on Order, 825
Public Affairs Forums Planned, 98
Self-Improvement Program Planned, 98
Service Flag Insignia, New, 207*
Snow Train Booklet Issued, 995
Brake, Dynamic, Saves Time on St. L. S. W., 940
Brakes, Air:
B. of R. T. View of the AB Brake, 66‡
Corrosion-Resistant Paint for, 152
Brakes, Air:—(*Continued*)
I. C. C. Order on, 66‡ (Correction), 532 (January 1, 1949 Deadline Set)
Mech. Div. Report on, 152
Westinghouse Composite Equipment, 171*
Brakes and Brake Equipment, Mech. Div. Report on, 152
Bridge and Building Supply Men's Association: Officers Elected, 872
Bridges:
C. & O. Rebuilds Big Sandy Bridge, 708*
Erie Viaduct at Portage Strengthened, 199*
Holland to Restore, 761
How British Railways Made Repairs During the "Blitz," 560*
T. & N. O. Pecos River Bridge, 75 (Correction)
Walkway on St. L.-S. F. Denison Lake Bridge, 250*
Wood, Maintenance of, 675
Brookings Institution Study of Railroad Situation Suggested, 867‡
Brotherhood of Locomotive Engineers:
Assets of, 226
Emergency Board Reports:
Georgia & Florida Dispute, 186, 312, 380
Southern Pacific Dispute, 186
R. L. E. A. Security Program Backed by, 696
Brotherhood of Locomotive Firemen & Enginemen:
Emergency Board Reports:
C. N. S. & M. and C. A. & E. Wage Disputes, 43, 76, 226
Georgia & Florida Dispute, 186, 312, 380
Illinois Central Dispute, 186; Strike Called, 311, 339, 378
Brotherhood of Maintenance of Way Employees: Uniform Wage Scale Sought, 42, 451
Brotherhood of Railroad Trainmen:
Assets of, 226
Emergency Board Reports:
C. N. S. & M. and C. A. & E. Wage Disputes, 43, 76, 226
Erie Dispute, 44, 186
Georgia & Florida Dispute, 186, 312, 380
Pacific Electric Dispute, 765, 1002
Full Employment Bill Supported by, 381
R. L. E. A. Security Program Backed by, 696
View of the AB Brake, 66‡
Brotherhood of Railway & Steamship Clerks: Postwar Railway Prospects and Program, 9, 376, 545†, 553, 833‡
Brunner Memorial Established to Aid Engineering Education, 492
Budd, Edward G., Manufacturing Company:
"Budgette" Car, 415, 798
Cabin Car, 799*
Car Building Plant Leased from Government, 47
Double-Bedroom Car, 415
Postwar Passenger Car Production Forecast, 230
Reconversion and Expansion Program, 425
Buildings:
Color Dynamics, 591†
Modernization of; G. M. Harrison on, 545†, 553
Stations Must "Go Modern," 816*
Bulwinkle Bill, 535, 616, 657, 693, 874, 999
Burlington Transportation Company: All American Bus Lines Seek to Buy, 270
Business:
Government Policies Toward, Since 1933, 858
Importance of N. A. M.'s Revised Public Relations Set-Up, 357†, 376*
Need for Profits in; S. O. Dunn on, 58, 858

C

Cabs, "Air-Conditioned," 968†
Canada:
Accounting, Uniform Railway, Suggested, 765
Agreed Charges, Experience with, 750, 1025‡ (Correction)
Convention Ban Lifted in, 763
Freight Car Loadings, 43, 75, 115, 226, 266, 313, 342, 377, 417, 450, 495, 531, 571, 612, 656, 689, 724, 760, 835, 871, 908, 947, 996, 1031, 1059
Railways Declare Coal Freight Rates "Basically Low," 611
Railways' War Job Praised, 688
Transport Co-ordination Urged, 656
Transport Financing, Concern Shown Over, 340
Canadian Box Cars, CSD Calls for Expedited Return of, 418
Canadian National:
Accounting, Uniform, Recommended, 765
Bout-de-l'Ile Line Opened to Traffic, 268
Car Supply Still Tight, 531
Circulating Libraries on Trains, 10
Earnings in May, 44; August, 614; October, 945
Locomotive Model Built for Department Store Display, 945*
School on Wheels Operated by, 465
Traffic Through New Montreal Terminal, 273
Yard Equipped with Radio-Telephone, 870*
Canadian Pacific:
Accounting, Uniform, Recommended, 765
Car, Aluminum Box, 265*
Car, Observation, with Double-Cupola, 455*
Check Room in Cafe-Parlor Car, 104*
Dining Car Meals Served During the War, 495
Earnings in May, 44; August 614; October, 945

Canadian Pacific:—(*Continued*)
Emergency Board Report on Wage Dispute, 263, 421
Locomotive, Old, Presented to Vancouver, 378*
Reservations, New Facilities for Handling, 691*
Snow Removal Operations, 928*
Tourist Trade in 1946, Outlook for, 836
Tours Resumed and Hotels Reopened, 992
Canadian Passenger Car Supply Still Tight, 531
Capital Expenditures:
Huge Sums Spent for, an Aid in Performing War Job, 569
London & North Eastern, 1940-1944, 495
Monthly: April, 185; May, 267; June, 500; July, 613; August, 872; September, 1029
Postwar Estimates of, 432†, 1028
Railroad Estimates for First Three Postwar Years, 1000
Railroad Outlay for 1945-46 Estimated, 228
Southern (of England), 1940-1944, 495
Capital, Railroads' Need for, 51†*, 195†, 399† (Correction), 721, 895
Capital Supply; Sources for Provision of New Facilities for All Agencies of Transportation Should be Studied, 93†
Car Building Plants, Capacity, of, 824
Car Distribution on the U. P., 293*
Car Spotting:
Eastern Roads File Tariff Covering, 232
Switch Allowances to Fruit Growers Supply Company by S. P. and W. P. Not Allowed by I. C. C., 384
Car Supply:
Freight:
Auto Box, A. A. R. Demands Return to Home Lines of, 836; Restrictions Eased, 907
Box Car Situation, 67, 307, 493, 652, 869, 996, 1026, 1044†
Box Cars, I. C. C. Service Orders on, 837
Box Cars Needed for Ordnance Loading, 2†
Canadian Box Cars, CSD Calls for Expedited Return of, 418
Car Distribution on the U. P., 293*
Car Service Division Reports on, 67, 306, 492, 652, 868, 1026
Cars Still at "War," 968†
End of C. M. P. Won't Retard Production, 390
Installations: Six Months, 116; Seven Months, 342; Eight Months, 495; Nine Months, 655; Ten Months, 869; Eleven Months, 1028
Installations, Years 1939-1945, 1001
More Efficient Use of Cars Asked, 760, 765
On Order: July 1, 116; August 1, 342; September 1, 495; October 1, 655; November 1, 869; December 1, 1028
Open Top Car Situation, 71, 307, 493, 656, 869, 1027
Orders, First Six Months of 1945, 188; Seven Months, 424
Pooled Cars Do Not Always Move the Fastest, 847†
Production Falling Behind, 37
Production, First Six Months of 1945, 189
Production Under WPB Allotment Plan, 390
Reconditioning of Auto Cars Urgent, 416
Refrigerator Car Situation, 307, 494, 656, 671†, 728, 847†, 869, 1027
Reserve of Serviceability Getting Low, 92†
Retirements, Years 1939-1945, 1001
Tank Car Controls Relaxed by ODT, 220, 345, 384
Tank Car Reports, Daily, Dropped by ODT, 71
Tank Car Situation, 71, 306, 494, 652
Tank Car Slow-Down Deplored, 722
Utilization:
Car Location and Passing Reports Required, More, 37
Don't Freeze the "Freezers," 671†,847†
Handling Company Materials, 24
Heavier Loading Prevented Serious Shortage of Refrigerator Cars, 417
Increased Efficiency Equivalent to Adding 605, 210 New Cars, 990
I. C. C. Study of, 616
War-Time Efforts Should be Continued, 635†, 968†
WPB "Critical" List Includes, 68
WPB Production Controls Removed, 111, 132†
Passenger:
Age of, 829*
Canadian Supply Still Tight, 531
End of C. M. P. Won't Retard Production, 390
Number on Order, 569, 827*
ODT Assumes Control of, 109
ODT Prohibits Use of Sleeping Cars on Runs of 450 Miles or Less, 68, 107, 110
Orders, First Six Months of 1945, 188; Seven Months, 389; Ten Months, 827*
Postwar Purchases Forecast, 230, 824
Production to Start in Fall, 75, 189
WPB Authorizes Production of, 108
WPB Removes Production Controls, 111, 132†
Car Trucks (See Trucks, Car)
Carnegie-Illinois Steel Corporation:
Corrosion Test Plant at Kure Beach, N. C., 594*
Cor-Ten Cars After Ten Years' Service, 652
Carrier Agreements, Bill to Stay the Application of the Anti-Trust Laws to, 535, 616, 657, 693, 874, 999
Carrier Associations, I. C. Act Proposed Amendment Would Require Reports from, 184
Carriers' Taxing Act: Status of Electric Railways Under, 535
Cars, Freight:
Box:
Aluminum; C. P. R., 265*
C. R. I. & P., with Roller Bearings, 311
Demurrage Charges, Increased, Discontinued by I. C. C., 457, 576; Reinstated, 837, 1000
Cabooses, Bill to Require Adequate Lighting for, 263
Construction, Mech. Div. Report on, 157*
Cor-Ten, After Ten Years' Service, 652
Damage Due to Heating; Mech. Div. Circular on, 1029
Hopper:
Demurrage Charges on, 45
Rolling Wrench for Gates of, 900*
Lightweight:
Cost of Materials; F. D. Foote on, 565‡
Costs That Will Justify, 33
Economics of; C. B. Bryant on, 33
Future of Light Metals; Inaccuracies in Testimony Before Senate Committee, 565‡
Lubrication of, Mech. Div. Report on, 155
Number in Use in Europe, 68, 220
Postwar Problems; C. B. Bryant on, 33
Refrigerator:
Demurrage Charges, 914, 1000, 1035, 1064
I. C. to Build New Type of, 266
Insulation, Quilted Hair, 169
Research Program A. A. R., 722
Tank:
Aluminum Tank Gives Record Service, 404*
Demurrage Charges, Sliding Scale; I. C. C. Service Order Suspended, 386
Mech. Div. Report on, 159
Utilization of Capacity, I. C. C. Study of, 616
War Department Declares Surplus Stock of, 692
Cars, Passenger: (See also Trains)
C. P. R. Cafe-Parlor Car Has Check Room, 104*
C. P. R. Observation, with Double-Cupola, 455*
C. B. & Q. Vista-Dome, 181, 242†, 245*
Construction, Mech. Div. Report on, 157*
Cost of Cars on Order, 824*
Dolling Up Passenger Cars, 548†
Fluorescent Lighting for, 854*
General Motors Astra Liner, 179*, 203*, 800*
I. C. All-Electric Diner Kitchen, 952*
Keeping Cars Clean, 197†
L. M. S. Coaches, 459
Lubrication of, Mech. Div. Report on, 155
Motor-Alternator for, 167*
Postwar Design:
A. C. F. Shows New Types of, 326*, 795*
A. C. F. "Slumberliner" Coach, 326*, 795*
Budd "Budgette" Car, 415, 798
Budd Cabin Car, 799*
Budd Double Bedroom Car, 415
Coach Seat Dimensions Recommended, 158*
Coach Seat Survey Published by Heywood-Wakefield, 418
Coach Seats, Full-Length Reclining, 169*
Dining Car Designs, 799*
Dolling Up Passenger Cars, 548†
Innovations Expected in, 795*
N. Y. C. Sleeping Car Survey, 786
Pullman Casino Car, 380*
Pullman Exhibit Shown to Public, 448, 797*
Pullman Grillroom Car, 262*
Pullman Living Room Car, 498*
Pullman Quick-Service Cafeteria Car, 716*
Railroads Survey Passenger Preferences, 784
Vapor Temperature Zone Control, 165
Voice of the Passenger, 94†
Prices of Some New Equipment, 824*
Progress, Physical, Aspects of, 779†
Weight-Saving Possibilities, 1012†
Window Curtain, Pratt, 900*
Cars: Special:
C. N. R. School on Wheels, 465
C. R. I. & P. Electronics Car, 300*
N. Y. C. Mobile Diesel Fueling Unit, 62*
Southern Diesel Instruction Cars, 364*, 848*
Western Maryland Instruction Car, 60*
Cartoons, Miscellaneous, 3*, 53*, 93*, 131*, 197*, 243*, 283*, 320*, 375*, 399*, 447*, 475*, 528*, 547*, 611*, 690*, 897*, 910*, 943*, 953*, 991*, 1027*
Census of Transportation Proposed, 1034
Centennial of the Central Vermont, 1028
Central of Georgia:
Passenger Equipment on Order, 825
Reorganization Plan Approved by I. C. C., 113, 879
Central Railroad of New Jersey:
Abandoned Stations Offered as Community Centers, 909
Annual Report for 1944, 48
Central of Pennsylvania Seeks to Acquire Pennsylvania Property of, 120
Commutation Fare Increase Sought, 662, 950
Commuter Fares, Higher, Would Permit Installation of Diesel Locomotives, 268, 698
No Early Relief for Commuter Standees, 995
Profit-Sharing Plan Proposed to Unions, 564
Reorganization Proceedings, 733, 767
Restoration of Trains Authorized by ODT, 456
Wage Demands, Wm. Wyer's Letter to Perth Amboy Evening News on, 254‡; Debated in "The Coupler," 479
Wage Proposals Would Add 40 Per Cent to Commuter Fares, 231
Central Vermont, Centennial of the, 1028
Centralized Traffic Control:
C. & O.; Orange, Va.-Charlottesville, 614
C. B. & Q. Complete Subdivision, 330*
Economics of Converting Automatic Block Signaling to, 603
Economics on Single-Track Lines of Less Than 20 Trains per Day, 603
N. C. & St. L.; Bruceton, Tenn.-Stevenson, Ala., 647*
P. M.; Grandville, Mich.-Fennville, 55*
St. L.-S. F.; Monett, Mo.-Springfield, 485*
Chamber of Commerce of the United States:
Government Competition Opposed by, 228
Transportation Committee Meeting, 907
Chapel for M. R. S. at Brussels Dedicated by Gen. Gray, 307
Cherry Rivet, 170*
Chesapeake & Ohio:
Advertising Series Related to Employment, 341, 461, 586, 961
Annual Report Wins "Financial World" Award, 495
Big Sandy Bridge Rebuilt, 708*
C. T. C. Installation; Orange, Va.-Charlottesville, 614
I. C. C. Grants Authority to Build Into New Coal Field, 453, 1037
Merger with N. Y. C. & St. L., P. M. and W. & L. E. Approved, 339, 462, 504, 664, 733 (N. Y. C. & St. L. Offer Withdrawn), 957 (P. M. Board Approves Plan)
Postwar Passenger Service Planned, 189
Trains, Streamlined, Ordered, 189, 825
Transcontinental Service Proposed, 871, 996
Chicago:
Motor Truck Strike, 41, 226
Railway Terminal, New, Proposed, 996
Standard Time Adopted Again, 724
Three Roads Sued on Smoke-Violation Charge, 871, 909
Chicago & Eastern Illinois:
Chicago-Florida Streamliners Planned, 459, 757
Passenger Equipment on Order, 826
Chicago & North Western:
Lights for Trains, Red, Figure-Eight Oscillating, 1024*
"Newsliner"; Employees Magazine, 761
Obsolete Property Units Retired, 285*, 323*
Passenger Equipment on Order, 826
Smoke-Violation Suit Filed by Chicago, 871, 909
Terminal Charges at Manitowoc, I. C. C. Report on, 314
Train Radio Tested by, 406*
Women's Lounge in Chicago Terminal, 572*
Chicago Association of Commerce: User Charges on Government-Owned Transport Facilities Favored, 868
Chicago, Aurora & Elgin:
Employees Seek Back Pay, 1029
Strike Delayed, 43; Emergency Board Report, 76, 226
Chicago, Burlington & Quincy:
Car, Vista-Dome, Tested, 181, 242†, 245*
Cars, Vista Dome for Twin Zephyrs, 424
C. T. C. on a Complete Subdivision; Lincoln, Neb.-Hastings, 330*
Chicago-Denver Service Now Dieselized, 1030
Conductor, Retired, Has 104th Birthday, 873*
Courtesy Stressed in Employee Booklet, 99*
Cultivating the War-Time Traveler, 99*
Passenger Equipment on Order, 424, 662, 826
Protection of Employees in Abandonment Cases; Conditions Interpreted by I. C. C., 582
Public Relations Program, 99*
Servicemen's Letters Featured in Booklet, 99*
Trains, Two New, Started as "Experiment," 530
Yard at Lincoln, Neb., Enlarged, 92†, 100*
Chicago, Indianapolis & Louisville: Reorganization Proceedings, 539, 956
Chicago, Milwaukee, St. Paul & Pacific:
Booklet on Postwar Travel for Veterans, 341
Crowley, L. T., and H. A. Scandrett to Head, 979*
Economics of Centralized Traffic Control, 603
Hanna Air Cylinder Tested on Car Trucks, 903*
Pullmans, 42, Taken Out of Service, 107
Reorganization Proceedings, 80, 767, 879; Termination of, 911
757th Battalion Takes Over German Locomotive Works, 72, 339*, 516*
Smoke Consumer Silencer, 901*
Smoke-Violation Suit Filed by Chicago, 871, 909
Chicago, North Shore & Milwaukee: Strike Delayed, 43; Emergency Board Report, 76, 226
Chicago, Rock Island & Pacific:
Car, Electronics Laboratory, 300*
Fined for Explosives Regulation Violation, 875
Reorganization Proceedings, 880
"Rocket" Fast Freight Service Begun, 871
Roller-Bearing Box Car Displayed, 311
Train Communication; 2660 Megacycle Installation, 559*
Train, New, Added, 264
Chicago, St. Paul, Minneapolis & Omaha: I. C. C. Report on Collision at Worthington, Minn., 876
Children, Railroad Books Suggested as Christmas Gifts for, 947*
Chinese Engineers Now Training on American Railroads, 225*
Chinese Engineers to Study American Motor Transport, 75
Chinese Railway Expert Aids American Army Men in China, 258*
Chinese Transport, Lt. Col. H. G. Hill to Aid in Rehabilitation of, 835

GENERAL INDEX—Continued

[Illustrated articles are indicated thus; Editorials thus†; Letters to Editor thus‡]*

Chinese Transportation Men Visit Alco, 66*; A. C. F. Plant, 343*
Chore Boy Trucks Used by P. R. R., 678*
Christmas Trees, Shippers Urged to Use Gondola and Flat Cars for, 910
Circuity, in Requiring Through Routes, I. C. C. Will Consider, 182
Civil Aeronautics Administration: Department of Commerce to Give "Increased Support" to, 534
Civilian Production Administration to Succeed War Production Board, 619
Claim Prevention Can be a Traffic Builder, 1013†
Claims:
- Egg Shipments in 1944, 42
- Overcharge, New Time Limits Proposed on, 575
- Payments in 1944, 567
- Payments in 1945 Estimated, 1013†
- Stopping the Leak, 474†

Class Rate Case:
- Eastern States Granted Injunction, 944, 1034, 1063
- Interim Adjustment Postponed, 113, 184, 497, 534, 689, 726, 1063
- I. C. C. Estimates Effect on 1942 Revenues, 73
- I. C. C. Issues First Supplemental Report, 762
- I. C. C. Solves Some Problems, Defers Others, 313
- Petitions in, 383, 421, 497, 573, 762
- Sen. Stewart on, 223, 265
- Some Southerners Object to "Uniformity," 341
- Strike Delays Printing of Tariffs, 689, 726
- Truck Operators Denied Further Consideration of, 497, 573, 762
- Western States Denied Authority to Intervene in, 421, 534, 573, 762

Cleveland, Cincinnati, Chicago & St. Louis:
- Law Department Discontinued at Cincinnati, 76
- 718th M. R. S. Battalion Operations, 329, 416
- Track Car Collision at Gard, Ill., I. C. C. Report on, 913

Cleveland Trust Company: "Business Bulletin" Compares Railroad and Highway Service During the War, 687*
Clinchfield: I. C. C. Grants Authority to Build Into New Coal Field, 453, 917, 1037
Coach Seat Dimensions Proposed for Recommended Practice, 158*
Coach Seat, Full-Length Reclining, 169*
Coach Seat Survey Published by Heywood-Wakefield, 418
Coal:
- Amount Displaced by Diesel Operations, 261
- Coal Becomes Aggressive, 926†
- Factor in the Future of, 670†
- Locomotive Performance Weaknesses Due to High Combustion Rates, 941*
- Locomotive, Selection of, 941*
- SFA Halts Stockpiling of District 8 Coals, 727
- SFA Says Shortage is Still a Possibility, 420
- Traffic Importance of, 262
- Use as Fuel for the Gas Turbine Studied, 530

Coal and Ore Terminal at Toledo Planned by N. Y. C. and B. & O., 80, 840
Coal Field, New, C. & O., and Clinchfield to Build Into, 453, 917, 1037
Coal Handling Facilities at Lorain, O., B. & O. to Build New, 732
Coal Rates:
- Anthracite, to New York Piers, Reduced by I. C. C., 698
- "Basically Low" in Canada, 611
- I. C. C. Report on Rates to Youngstown, O., 660

Collective Bargaining, 846†
College Men on the Railroads:
- Do the Railways Want College Men?, 107‡, 527‡
- Human Side of Engineering, 433†
- Railroads Lethargic in Recruiting Trained Men, 66‡
- Suggestions Looking to a Scientific Approach to the Problem of, 527‡

Collisions (See Accidents)
Colombia, Railway Mission Sent to, 341
Color Dynamics, 591†
Commerce and Industry Association of New York: Rate Figures Used by Governor Arnall Questioned, 231
Committee on Fair Employment Practice (See Office for Emergency Management)
Communists, Unsafe to Appease the, 32
Community-Railroad Action Needed to Improve Right-of-Way and Stations, 741†
Commutation Fares (See Passenger Fares)
Company Materials, P. & S. Div. Report on Handling Cars of, 24
Competition:
- Anti-Trust Suit Against the Railroads, 132, 208, 413‡, 529, 691, 692, 946
- Baseball Clubs to Travel by Rail in 1946, 969†
- Faster Truck Service—A Threat and a Challenge, 512†
- Government, Opposed by C. of C., 228
- Heavy Carloads Aid in, 400†
- How Much, in Transportation?, 413‡
- Passenger Traffic Outlook, 782
- Public Uninformed of Railroads' Handicaps, 705†, 717*, 867‡
- Traffic Solicitation, Need for Changes in, 474†

Competitive Policy, Railroads', Public Misunderstanding of, 886†
Competitive Transportation:
- Attitude of Various Forms of Transportation on; L. F. Orr on, 371
- Lea, Rep. C. F., on, 933

Compressor and Generator Drive, Spicer, 170*
Congress: 79th Congress, Second Session, to Open January 14, 1064
Congress of Industrial Organization: Chosen as Bargaining Representative by Santa Fe Maintenance Employees, 76; by P. R. R. and B. & O., Groups, 765
Consolidations:
- American Rolling Mill Company-Rustless Iron & Steel Corporation Merger Proposed, 580
- A. A. R. Report on, 105
- C. & O. Board Approves Plan for Merging N. Y. C. & St. L., P. M. and W. & L. E., 339, 462, 504, 664, 733 (N. Y. C. & St. L. Offer Withdrawn) 957 (P. M. Board Approves Plan)
- G. M. & O.-Alton Merger Approved by I. C. C., 513*, 956
- *Railway Age* Reply to Rep. Lea's Questionnaire on National Transportation Policy, 896

Construction Guide Prices, I. C. C., 621
Construction Indices for 1944, I. C. C., 249
Construction Materials, P. & S. Div. Recommendations for Handling of, 29
Construction, New: (See also Railway Construction at End of Index)
- C. N. R. Bout-de-l'Ile Line Opened, 268
- C. & O. Rebuilds Big Sandy Bridge, 708*
- C. B. & Q. Yard at Lincoln, Neb., 92†, 100*
- Erie Viaduct at Portage Strengthened, 199*
- G. N. Curve Reduction Program, 745*
- I. C. Train Sheds at Chicago and New Orleans Renovated, 1046*
- Improvements Pay Off on Western Roads, 92†
- N. P. Diesel Shop at Auburn, Wash., 359*
- N. P. Locomotive Shops at Livingston, Mont., Modernized, 973*
- Southern Drives Shotcrete-Encased Piles, 888*
- Start Improvements Now, 130†
- Stations Must "Go Modern," 816*
- T. & N. O. Pecos River Bridge, 75 (Correction)
- Walkway on St. L.-S. F. Denison Lake Bridge, 250*

Construction Order Further Relaxed by WPB, 456; Order Revoked, 658
Container Engineers Appointed by Railroads, 1013†
Container Research Program Enlarged, A. A. R., 722
Container Specifications for Egg Shipments, 42
Container Testing Facilities Established, 474†
Convention Ban Lifted in Canada, 763
Convention Controls Lifted by ODT, 346, 423, 456; Mileage Saved by, 729
Conventions, Railroad, Need for, 356†
Co-operation Between Associations Needed, 968†
Co-operation Between Departments Needed, 968†
Co-operation Between Railroads and Shippers in Improving Packaging Methods, 474†, 1013†
Co-operative Railroad-Community Action Needed to Improve Right-of-Way and Stations, 741†
Co-operative Relations with Universities, A. R. E. A. Report on, 107‡
Co-ordination of Transportation:
- Attitude of Various Forms of Transportation on; L. F. Orr on, 371
- Gaffney, F. A., on, 656
- Pelley Nails a Canard, 873, 886†
- President Truman on Unified Services, 1043†
- *Railway Age* Reply to Rep. Lea's Questionnaire on Transportation Policy, 896
- T. A. A. Claims "Integration" Idea is Misrepresented, 758

Corrosion of Air-Brake Parts, 152
Corrosion of Buried Metal: A. A. R. Electrical Section Report, 987*
Corrosion Test Plant at Kure Beach, N. C., 594*
Cor-Ten Cars After Ten Years' Service, 652
Costs:
- Cars, Lightweight, Costs That Will Justify, 33
- Freight Service Unit Costs, I. C. C. Study of, 74
- Locomotive Operation, Diesel-Electric; Basis for Analyzing Needed, 634†
- Locomotive Operation, Diesel-Electric Freight; D. & R. G. W., 639*
- Locomotive Operation; Steam and Diesel Switchers and Road Engines on the St. L. S. W., 939, 940
- Locomotives, Diesel-Electric, Maintenance and Operating Costs on, 2†
- Metals, Lightweight; F. D. Foote on, 565‡
- St. Lawrence Seaway Estimates, 835

Couplers, Mech. Div. Report on, 149*
Couplers, Reclamation of, 150*
Court Decisions (See Legal Decisions)
Courtesy Stressed in C. B. & Q. Employee Booklet, 99*; N. Y. C. Booklet, 342*; B. & O. Booklet, 1013†
Courtesy, Time for, 1012†
Coverdale & Colpitts: S. A. L. Silver Meteor Revenue Study, 435*
Cranes, New Wrecking, on the P. R. R., 904*
Cribbing, Machines for, 707†
Crossties (See Ties)
Curve Reduction, 4†
Curtain, Pratt Window, 900*
"Cyclo-Tractors" Suggested as Solution for European Transportation Shortage, 512†
Cylinder, Air, Hanna Glide-Ride, 903*

D

Debt Adjustment Under I. C. C. Supervision, Bill to Provide for, 117, 729, 980 (Elisha Friedman on)
Deferred Maintenance, Amount of, 1028
Delaware, Lackawanna & Western:
- Emergency Board Report on Labor Dispute, 311, 421
- Equipment Depreciation Rates, 452
- Leased Lines Merger, 121, 426, 700, 917, 1006
- Service Disrupted by Heavy Rains, 185

Demurrage Charges:
- Army Holds Charges to a Minimum, 456
- Box and Flat Cars; Increased Charges Discontinued, 457, 576; Reinstated on Box Cars, 897, 1000
- Hopper Cars, 45
- Refrigerator Cars, 914, 1000, 1035, 1064
- Sliding Scale, on Tank Cars; I. C. C. Service Order Suspended, 386

Denver & Rio Grande Western:
- "California Zephyr" Ordered, 662
- Economics of Converting Automatic Block Signaling to Centralized Traffic Control, 604
- Improvement Program, 917, 1037
- Locomotives, Diesel Freight, Operating Performance and Maintenance of, 639*
- Narrow Gage "Show" is Part of 75th Birthday Celebration, 653
- "Prospectors," New, Established, 688
- Switchmen's Dispute to be Arbitrated, 73
- Tunnel, New, at Tennessee Pass, 760

Depreciation Charges, R. E. A., 42, 693
Depreciation of Roadway Property on Class II and III Railroads, I. C. C. Requirements for, 43
Depreciation Rates for Equipment, 227, 452
Derailments (See Accidents)
Detectors, Dragging Equipment, on P. R. R., 368*
Detroit, Toledo & Ironton Fined for Elkins Act Violation, 621
Diesel-Electric Locomotives (See Locomotives)
Diesel Engine Manufacturers Association: Officers Elected, 1031, 1036
Diesel Fueling Unit, N. Y. C. Mobile, 62*
Dining Car Food-Handlers' School, 257*, 494
Dining Car Service:
- Better, 53†
- Meals Served by C. P. R. During War, 495
- Passenger Traffic Department Should Have Some Authority Over, 434†
- War and Postwar, 434†

Dining Car Thefts on Erie and N. Y. C., 377
Dow Chemical Company: Corrosion Test Plant at Kure Beach, N. C., 594*
Draft Gears, Mech. Div. Report on, 149*
Draft-Key Retainers, Mech. Div. Reports on, 149*, 157*
Dragging Equipment Detectors on P. R. R., 368*
Drainage, Modern Methods of, 477
Drinking on Trains, Proposed Bill Would Hold Railroads Responsible for, 876
Drive, Spicer Generator and Compressor, 170*
Dynamic Brake Saves Time on St. L. S. W., 940

E

Eastern Roads Join in Tariff Covering Car Spotting Services, 232
Economic Quackery Fifty Years Ago and Now, 509†
Economics, Inventions and, 510†
Economics of Signaling, Report on, 603
Economics: What Economics Teaches About Wage Adjustments, 546†
"Economist": A Primitive Solution for a European Impasse, 512†
Economy, Heavy Carloads Promote, 400†
Edison General Electric Appliance Company: I. C. All-Electric Diner Kitchen, 952*
Edna Brass Company: Single-Lever Operated Locomotive Injector, 166*
Educational Value of Travel, 198†
Egg Loading, Shippers Urged to Use Care in, 39
Egg Shipments, Container Specifications for, 42
Electric Service Supplies Company: Locomotive Headlight for Streamline Equipment, 167*
Electrification:
- Railways in Holland Plan, 72
- Switzerland's Long-Range Policy; Value Proven During War, 873

Electrolysis: Electrical Section Report on Buried Structure Tests, 987*
Electronics Car on the C. R. I. & P., 300*
Elgin, Joliet & Eastern: Supreme Court to Hear Reargument in Case Involving Adjustment Board, 660, 764
Elkins Act Violations, 621, 727
Elwell-Parker Electric Company: Rolling Wrench for Hopper Car Gates, 900*
Employee-Representation Elections, 43, 73, 76, 227, 266, 345, 423, 534, 574, 659, 697, 765, 876, 952, 1003, 1064
Employee Suggestion Systems:
- L. M. O. A. Report on, 890
- L. & N. Awards, 388, 955
- Results on N. Y. N. H. & H., 269
- Survey of, 890

Employees:
British Railway Officers Form Guild, 906
Gangs, Section, vs. Extra, 886†
Improved Facilities, Need for; G. M. Harrison on, 545†, 553, 833‡
Interdependent Interests of Railways and, 545†
Military Honors Awarded to, 70, 71, 216, 258*, 305*, 307, 308, 339, 341, 380, 416, 417, 529, 531, 570, 571, 610, 612, 613, 687, 689*, 724, 725, 760, 764*, 834*, 910
Number in Armed Services, 657
Number of:
Monthly: June, 75; July, 313; August, 456; September, 660; October, 838; November, 1001
Women Railroad Employees, 228, 697
Profit-Sharing Plan Proposed by C. of N. J., 564
Protection in Abandonment Cases; Conditions Interpreted by I. C. C., 582
Refrigerator Car Line Supervisors; Status Under Railway Labor Act, 46
St. L.-S. F. Roadmasters, I. C. C. Report on Status of, 727
Shortage of:
Freight Car Production Lag Due to, 37
Johnson, Col. J. Monroe on, 173, 659
"Man-Power Drive Month" Started, 219
President Truman Says Western Railroads Must Have Men, 109
Railroad Retirement Board Report on, 659
Railroad Service Requisitioned but Not Provided for, 196†
Steps Taken by the Army to Aid the Railroads, 38, 172, 173, 174 (Col. J. M. Johnson Criticizes), 215, 216
Wanted: Track Workers, 53†, 510†
WMC Gives Western Roads Top Priority Rating, 109, 177
WPB Puts Western Roads on National Production Urgency List, 177
Western Railroaders May Still be Certified to Draft Boards, 382
Western Trains Delayed by, 225
Strikes (See Strikes)
Telegraphers Get Six-Day Week, 44, 224
Training of (See Training of Employees)
Wage Advance Cases:
C. N. S. & M., and C. A. & E. Disputes Settled, 43, 76, 226
Cost of, 195†, 399† (Correction), 546†, 948, 993, 1030
Maintenance Employees Seek Uniform Scale, 42, 451
Non-Operating Unions:
Cost of, 948
Demands of, 948, 993
Mediation Begun, 1030, 1063
Meetings Resumed, 907, 948, 993
Operating Unions:
Cost of, 195†, 399† (Correction), 993, 1030
Demands of, 179, 195†, 301, 399†, (Correction), 451, 993
Has Labor only "Rights," Not "Duties"?, 356†, 471†
Mediation Begun, 1030, 1063
Meetings Resumed, 793, 948, 993
Proposals Debated in C. of N. J. "Coupler," 479
Proposals Would Increase C. of N. J. Commuter Fares 40 Per Cent, 231
Railroads Slow to Defend Themselves, 254‡
Railways' Counter-Proposals, 302
Shop Employees:
Demands of, 471†, 499
Labor Demands Its "Rights," 471†
Wages:
Bills to Provide 75-Cent an Hour Minimum, 185, 657
C. A. & E. Men Seek Back Pay, 1029
Comparisons for 1940 and 1945, 616
Controls Relaxed by W. L. B., 344, 728
Great Britain, Railway Increases in, 706†
Guaranteed Wage Proposals to be Studied, 181
Jobs and, 399†
National Railway Labor Panel Controls Eased, 383
None of the Government's Business, 688
Output per Wage Dollar in Train and Engine Service, 838
President Truman's Wage-Price Policy, 344, 728, 739†
Senate Resolution on Minimum Rates, 185
S. P. of Mexico Grants Increase, 909
Vinson, F. M., on, 37
What Economics Teaches About Wage Adjustments, 546†
Employment:
Full Employment Bill (See Full Employment Bill)
How to Secure "Full Employment," 397†
Jobs for M. R. S. Officers, 254‡
Railroad Outlook for Postwar Period, 308
Two Programs for Providing, 281†
Employment of Veterans:
N. Y. N. H. & H., Number Re-employed by, 771
Reemployment Rights, 536, 575
"Superseniority" Awarded a Veteran, 419
Engineering, Human Side of, 433†
Enginehouses:
Modern, B. & B. Report on, 676
Safety in; National Safety Council Report on, 740†, 754*
Equatemp Insulation, 169
Equipment Depreciation Rates, 227, 452
Erie:
Dining Car Employees Arrested for Thefts, 377
Emergency Board Report on Labor Dispute, 44, 186
Employee Training Courses, 806
765th Shop Battalion Moved to Pacific, 217
Service Disrupted by Heavy Rains, 186
Viaduct at Portage Strengthened, 199*
European Inland Transport, Provisional Organization for, 456
Exhibition of Early Railroading in St. Louis, 182
Explosives, Transportation of; Roads Fined for Rules Violations, 534, 576, 875, 951, 999
Export Traffic:
Carload Freight Consigned to New York Embargoed, 613, 869
Monthly: June, 71; July, 307, 341
ODT Controls Save Many Car-Days, 500
ODT Dissolves Port Traffic Control Committee, 692
ODT Relaxes Controls Over, 384, 574; Controls Eliminated, 660
Traffic at Houston, Tex., Halted Because of Labor Trouble, 690; at Galveston, 722; Houston Embargo Lifted, 836
Express Companies, Depreciation Charges for, 42, 693

F

Failures and Progress, 197†
Fair Labor Standards Act: Bill to Provide 75-Cent an Hour Minimum Wage, 185, 657
Fares (See Passenger Fares)
Farnsworth Television & Radio Corporation: AM and FM Radio Tested on A. T. & S. F., 612*
Featherbedding (See Make-Work Rules)
Federal Agencies, a Five-Day Week for, 385
Federal Aid (See Subsidies)
Federal Communications Commission:
Frequency Allocations Explained by A. A. R., 7
Railroad Radio Operators Need No Licenses, 347
Rules Governing the Application and Use of Radio for Train Communication, 863, 1065
Federal Power Projects:
America's "Break with the Past," 284
"The Authority Issue," 319†
Fertilizer Shipped to England on Lend-Lease Held Not to be Military Freight, 1032
Fiberglas Pipe Insulation, 168*
Films (See Motion Pictures)
Financing:
Amortization of War Emergency Railroad Facilities Can be Speeded Up, 620; Earnings Distorted by, 837, 1001; Questions Answered Concerning, 1034
B. & O. Adjustment Plan, 48, 120, 504, 539, 879 (Approved by Court)
B. & O.-R. F. C. Relations Questioned by Sen. Wheeler, 310, 381, 492
Bill to Provide for Debt Adjustment Under I. C. C. Supervision, 117, 729, 980 (Elisha Friedman on)
Northern Pacific, Supporting Assets Aid, 438*
Railroad Credit Requires Fair Deal to Stock; Elisha Friedman on, 980
Railroad, Improvements in; Survey of Current Business Comment, 696, 1061
Railway Age Reply to Rep. Lea's Questionnaire on Transportation Policy, 894
Fire Hazards, Elimination of, B. & B. Report on, 677
Fire Hazards in Diesel Shops, 846†, 856
Fire Protection for Diesel Locomotives, 684*
Fire-Protective Equipment, Maintenance of, B. & B. Report on, 677
Fire-Retardant Treatment of Wood, Statistics on, 643
Fire Stream Conductivity Tested by N. Y. N. H. & H., 608*
Firebox Materials and Construction, Mech. Div. Report on, 154
Five-Day Week for Federal Agencies, 385
Fixed Properties:
C. & N. W. Retirement Program, 285*, 323*
I. C. Program for Improving, 1017*
Millennium is Not Yet, 322†
New Attitude Demanded Toward, 321†
Railroads' Future and the Engineer, 1017*
Start Improvements Now, 130†
Streamliners Alone Will Not Do the Job, 778†
Tailoring Tracks for Faster Trains, 812*
Flood Prevention, 43
Floods Cause Heavy Damage in New Jersey, 185
Floor Plates, Checker-Surfaced Rolled-Steel, 164*
Florida East Coast:
Passenger Equipment on Order, 826
Reorganization Proceedings, 190, 271, 351, 390, 700
Fluorescent Lighting for Cars, 854*
Food Handlers' School for Dining Car Employees, 257*, 494
Forest Products, P. & S. Div. Report on, 22
Formula for Railroad Prosperity, 644
France:
Interallied Railway Commission Set Up, 379
"Liberation" Type Locomotives, 401*, 451
Number of Cars and Locomotives in, 379
Free Enterprise: (See also Subsidies)
Have We Learned Nothing from Nazis' Failure?, 868
Invention and Economics, 510†
Free Enterprise:—(*Continued*)
Need for Profits; S. O. Dunn on, 58, 858
Political Leadership Against Socialism, 1†
Preservation of the American System, 8
President Truman Goes New Deal, 431†
President Truman on Unified Services, 1043†
Progress Toward Socialism in Britain and Here, 241†
Railroads' Environment Has Changed, 858
Two Programs for Peace-Time Prosperity, 281†
Where "Free Enterprise" Has Abdicated to Politics, 131†
Free Transportation, I. C. C. Will Not Aid Employees in Seeking, 839
Freight Car Loading:
Alternative Carload Minima Considered, 494
Grain Loadings, ODT Reports on, 36, 67, 110, 182, 220, 423, 1029
Heavy Carloads Promote Economy, Aid in Competition, 400†
Heavy, Retention of; Department of Commerce Comment on, 731; Walter Kelly on, 757
How to Retain Heavier Loads Per Car, 95, 140, 400†, 411
I. C. C. Bars Sunday Loading in California and Arizona, 75, 77, 111; Order Cancelled, 386
I. C. C. Estimates of, 74, 263, 455, 620, 838
I. C. C. Service Order on Car Overloads Amended, 45, 78, 260, 536
Kansas Suspends Low Minimum Weight on Livestock Carload, 177
Rates, Low, for Heavy Loads Should Build Traffic, 967†
Refrigerator Cars, Heavier Loading Prevented Serious Shortage of, 417
Shippers' Estimates Compared with Actual Loadings; First Quarter, 266; Second Quarter, 907
Shippers' Estimates for Third Quarter, 44; Fourth Quarter, 572, 599, 653; First Quarter of 1946, 1031
Weekly Reports, 43, 75, 115, 181, 226, 266, 312, 342, 377, 417, 450, 495, 531, 571, 612, 655, 689, 724, 760, 835, 871, 908, 947, 996, 1030, 1059
Western Fruit and Vegetable Shipments Above 1944, 177
Freight Classification Case (See Class Rate Case)
Freight Forwarders:
Bill to Provide for Reparations Against, 950
Contracts Between Forwarders Must be Filed, 536, 875
Freight Handling:
Army Holds Down Demurrage, 456
Army-Navy Consolidating Activities Cut, 728
Company Materials, P. & S. Div. Report on, 24
Egg Loading, More Careful, Urged, 39
Military Traffic Halted as War Ceases, 306, 344, 345, 698
One Day's Work of M. R. S. in Europe, 328*
P. R. R. Mechanizes Station Operation, 678*
Railroads Aid Shippers with Packaging and Shipping Problems, 474†, 1013†
Visual Education for Freight Handlers, 713*
Wharfage Allowance Granted to the Army, 348
Freight Operating Statistics: April, 191; May, 279; June, 429; July, 587; August, 843; September, 1041
Freight Rates (See Rates, Freight)
Freight Service:
C. R. I. & P. Fast "Rocket" Service Begun, 871
Faster Truck Service—A Threat and a Challenge, 512†
Fifth Morning Truck Delivery Between St. Louis, Mo., and California, 451, 512†
Questionnaire Sent to Shippers by A. A. R. Railroad Committee for the Study of Transportation, 691
Railroads Aid Shippers with Packaging and Shipping Problems, 474†, 1013†
Transcontinental Air Service Begun, 451
War and Postwar; Dept. of Commerce on, 730
What Shippers May Expect from the Railroads, 1045†
Freight Service Unit Costs, I. C. C. Study of, 74
Freight Stations (See Stations, Freight)
Freight Traffic: (See also Air Traffic; Export Traffic; Motor Truck Traffic; Pacific Coast Traffic)
Army Shipments Overseas During War, 496
Army Traffic Handled During War, 645, 697
Army Traffic Moved by Rail and Highway, 687*
A. A. R. Research Work Outlined, 40
Chart Comparing 1945 with 1929, 1941 and 1944, 181*, 312*, 450*, 655*, 908*, 1030*
Chicago Gateway in Fluid Condition Despite Truck Strike, 41
Claim Prevention Can Be a Traffic Builder, 1013†
How Army's Cutbacks Will Affect Carriers, 344
L. C. L. Traffic in Northwest Increased by Truck Strike, 995, 1027, 1035
Military Traffic Halted as War Ceases, 306, 344, 345, 698
Oil Movement an Epic of War-time Transportation, 511†
Outlook for 1945, 36, 385
Postwar Changes: W. C. Kendall on, 599
Prospects for, 355†, 1061
Rates, Low, for Heavy Loads Should Build Traffic, 967†
Ton-Miles (See Ton-Miles)
Western Fruit and Vegetable Shipments Above 1944, 177
Fuel, P. & S. Div. Report on, 31

GENERAL INDEX—Continued

[Illustrated articles are indicated thus; Editorials thus†; Letters to Editor thus‡]*

Fuel Consumption:
Locomotive; BRE Statistics for 1944, 124, 172
Question of Equating Oil to Coal Basis, 473†
Statistics, More Detailed, Advocated, 715, 870 (Correction)
Fueling Unit, N. Y. C. Mobile Diesel, 62*
Full Employment Bill:
Economic Quackery Fifty Years Ago and Now, 509†
Full Employment Plus General Poverty, 592†
Guaranty Trust Company "Survey" on, 244
How to Secure "Full Employment," 397†
Jordan, Virgil on, 255
Planners are Biding Their Time, 634†
Rail Labor Supports, 381
Undermining the Moral Code, 431†
Future of the Railroads:
British Railway Prospects, 690
Change in Environment; S. O. Dunn on, 858
Ennis, Dr. J. B., on, 970*
Fifth Public Opinion Survey on the Railroads, 705†, 717*
Formula for Prosperity; W. A. Johnston on, 644
Gurley, F. G., on, 556
Mottier, C. H., on, 1017*
Pelley, J. J., on, 568
Survey of Current Business Review, 696, 1061
Symes, J. M., on, 1028
Why Future is Uncertain; S. O. Dunn on, 58

G

Gages in Australia, Conversion of, 554*
Gardens (See Victory Gardens)
Gas Turbine, Study of Coal as Fuel for the, 530
General American Transportation Corporation: Aluminum Tank Car Gives Record Service, 404*
General Electric Company:
Anti-Trust Suit Filed Against, 619
English Channel Pipe Line Produced by, 64*
Lamp Agreements, New, with Westinghouse, 182
Locomotive, 600-Hp. Diesel-Electric Road and Switching, 115*
Unit Substation, Railroad-Mounted, Built for U. S. S. R., 867*
Virginian M. G. Type Electric Locomotives, 840
General Motors Corporation:
Electro-Motive Division:
Astra Liner to be Built, 179*, 203*, 800*
Strike Closes Plant of, 906
Stalemate in Labor Relations, 925†
General Railway Signal Company:
C. B. & Q.; C. T. C. Installation, 330*
Pere Marquette; C. T. C. Installation, 55*
Generator and Compressor Drive, Spicer, 170*
Georgia & Florida: Emergency Board Report on Wage Dispute, 186; Strike Called, 312; Strike Ended, 380
Georgia Equalization Rate Case, 310, 576, 1001, 1034
Germany:
Effect of Strategic Bombing on Railroads and Industry, 719
Locomotive, High-Speed Passenger, 862*
Locomotive Works Taken Over by 757th M. R. S. Battalion, 72, 339*, 516*
Locomotives, 2-10-0 Condenser Type, 339*, 1051*
Progress in Restoring Rail Lines, 730
Railways Inspected by M. R. S., 570
Glide-Ride Air Cylinder, 903*
Goodyear Tire & Rubber Company: Synthetic Airfoam, 165*
Government Agency Reorganization Bill Passed, 267, 496, 534, 619, 875, 1063
Government Blamed for Stranded Veterans' Plight, 1058
Government Competition Opposed by C. of C., 228
Government Control:
Bingham & Garfield Released from, 420
Illinois Central Placed Under, 378
T. P. & W. to be Returned to Owners as "Soon as Practicable," 383; On October 1, 452
Government Employees, Senator Wheeler Would Reduce Travel by, 37
Government Ownership:
British Railways, Threat to, 706†
Lea, Rep. C. F., Warns of, 933
Government: States' Reliance on Federal Government for Money; H. W. Summers on, 986
Government War Planners to Blame for Transportation Shortage, 196†
Grading, Right-of-Way, Modern Methods of, 477
Grain Movement:
I. C. C. Permit Order Suspended, 45
I. C. C. Permit System Invoked at Kansas City and St. Louis, 227
Light-Loading of Cars Permit Explained, 258
Loadings, ODT Reports on, 36, 67, 110, 182, 220, 423, 1029
Permit System on Great Lakes Ended, 692
Senate Investigation was Unnecessary, 220
Western Lines Produce Record Movement, 996
Grain Rate Changes in South Postponed, 575
Grain Rate Proportionals, Ex-Barge; Operation Delayed, 615
Grand Central Terminal:
Holiday Music Heard Daily in, 1026
"Sky" Rejuvenated, 520*
Grate, Locomotive Stoker Sectional-Type, 171*
Great Britain:
"Copping Locos" a Favorite Sport in, 263
Government's Share of Railway Revenues During War Years, 461
How Railroads Kept Running in "Blitz," 560*
"Liberation" Locomotive Designed for Europe, 434†, 443*
Private Ownership of Railways in Grave Danger, 706†
Progress Toward Socialism, 241†
Railway Officers' Guild Organized, 906
Railway Wage Increases Granted, 706†
Railways, Outlook for, 690
Railways' Switch to Peacetime Operation "Remarkable," 451, 690
Significance of Britain's Election, 214
Tribute to Norman A. Ryan, 1025‡
Great Lakes Towing Company Taken Over by ODT, 953
Great Northern:
Block Signals to be Installed on Fargo Junction, N. D.-Surrey Line, 532, 837
Collision with S. P. & S. Train, I. C. C. Report on, 229
Curve Reduction Program, 745*
"Empire Builder" Collision at Michigan, N. D., 315; I. C. C. Report on, 532, 837
Improvement Program, 1067
Locomotives, Electric, Ordered, 1065
Passenger Equipment on Order, 826
Radio Telephone Train Communication Tests, 494
732nd. Battalion Commended, 216
Strike Averted on, 836
Greyhound Corporation:
Anti-Trust Suit Filed by Department of Justice, 693
Control of Wisconsin Bus Line Permitted, 913
Florida Motor Lines Acquired by, 1002
Purchase of Additional C. & L. E. Stock Authorized, 729
Grouting of Old Masonry, B. & B. Report on, 676
Grouting, Roadmasters' Report on, 477
Guaranty Trust Company "Survey": The Full Employment Bill, 244
Gulf, Mobile & Ohio:
Alton Merger Approved by I. C. C., 513*, 956
Equipment Depreciation Rates, 227
Trains Now Operate Into St. Louis Union Station, 226
Gulfport & Mississippi Coast: Status Under Railroad Retirement, Railroad Unemployment Insurance and Carriers' Taxing Acts, 535
Gustin-Bacon Manufacturing Company: Flexible Pipe Insulation, 168*

H

Hanna Glide-Ride Air Cylinder, 903*
Hardware, Commercial Standards for, 706†
Harriman Safety Awards: Safety Goal, 52†
Hart, Frederick, & Co., Inc.: Recordgraph for Recording Train Communication Messages, 1050*
Headlights:
For Streamline Equipment, 167*
Mars Figure-Eight Oscillating Red, 1024*
Heating, Damage to Cars by; Mech. Div. Circular on, 1029
Henschel and Sons: German 2-10-0 Condensing Locomotive, 339*, 1051*
Heywood-Wakefield Company: Coach Seating Survey, 158*, 418
Highway Program Advocated by Brig. Gen. E. H. Lastayo, 1055
Highway Transport Freed of General Taxes by Kentucky and Pennsylvania, 906
Highway Transportation: Where "Free Enterprise" Has Abdicated to Politics, 131†
Highway Users Group Renounces "Price System," 926†
Highways:
Effect of Invention and Economics on Toll-Gates, 511†
Resolution Authorizes Start of Postwar Program, 576
Hobbs Bill (See Bankruptcy Act)
Holland:
Bridges to be Restored, 761
Railway Electrification Plans, 72
Railway Equipment Losses to the Germans, 72
Horses, Race, Transportation of, Banned Again, 38, 68, 77, 178; Ban Removed, 346, 347
Hot Boxes (See Journal Bearings)
House Committees:
To Investigate Food Shortages: Concern Over Transport Situation Shown, 71
Transport Studies Planned by Interstate and Foreign Commerce Subcommittee, 74, 93†, 112, 130†, 223, 868, 876, 892
House Joint Resolutions:
For Approval of St. Lawrence Seaway Pact, 574
To Repeal Unexpended Balances of Fiscal 1945 Appropriations, 41
House of Representatives Pays Tribute to C. F. Lea on His Birthday, 115
House Resolutions:
For Investigation of Railroad Reorganization Plans, 912
To Authorize Start of Postwar Highway Program, 576
Hudson & Manhattan:
Collision on Drawbridge, 1026
Fares, I. C. C. Order on, 1000
Larger Share of P. R. R. Fares Sought, 695
Human Side of Engineering, 433†

I

Illinois Central:
Car, Kitchen, All-Electric, 952*
Car, New Type Refrigerator, to be Built by, 266
Chicago-Florida Streamliners Planned, 459, 757
Emergency Board Report on Labor Dispute, 186; Strike Called, 311, 339; Taken Over by Government, 378
How War-Time Traffic Was Handled, 636*
Maintenance Department Safety Record, 655
Officers Survey Latin American Markets, 416
Passenger Schedules Revised, 44
Postwar Plans of, 638
Program for Improving Fixed Properties, 1017*
Public Address System; Chicago 63rd St. Station, 650*
Public Relations Advertising, 25th Anniversary of, 723*
Train Communication Tests, 226, 742*
Train Sheds at Chicago and New Orleans Renovated, 1046*
Improvement Program for 1946 Launched by Western Roads, 724; D. & R. G. W., 917, 1037; G. N., 1067
Improvements Paying Off on Western Roads, 92†
Improvements Should Be Started Now, 130†
Income and Balance Sheet Items: April, 185; May, 267; June, 500; July, 613; August, 872; September, 1029
Index to Volume 118, 434
India: Army Railroading on the Bengal & Assam, 34*
Industrial Brownhoist Corp.: Wrecking Cranes Have New Features, 904*
Industrial Development Booklet of N. Y. N. H. & H. Publicizes Southern New England, 836
Industrial Relations: (See also Employee Suggestion Systems)
B. & M. Self-Improvement Program, 98
Collective Bargaining, 846†
Color Harmony in Painting an Aid to, 591†
Creation and Development of an Effective Division Staff; Superintendents' Report, 526
Improved Employee Facilities, Need for; G. M. Harrison on, 545†, 553, 833‡
Profit-Sharing Plan Proposed by C. of N. J., 564
Scientific Approach to the Problem of College Men on the Railroads, 527‡
Training Employees in Tactful Behavior, 805*
Industry Can Make Friends for Itself, How, 1053
Injector, Locomotive, Single-Lever Operated, 166*
Inland Waterways Corporation:
Annual Report for 1944, 180
Lennon, J. A., Named President, 419
Insulation, Pipe, G-B Flexible, 168*
Insulation, Quilted Hair, 169
Inter City Transportation Company, Inc.: I. C. C. Will Not Issue Any More Joint Certificates for Routes, 501
Interallied Railway Commission Set Up, 379
International Nickel Company: Corrosion Test Plant at Kure Beach, N. C., 594*
International Railway: Motor Coach Operations Denied Exemption from Motor Carrier Act, 914
Interstate Barriers to Commerce: *Railway Age* Reply to Rep. Lea's Questionnaire on Transportation Policy, 898
Interstate Commerce Act:
Amendment to Give Legal Sanction to Rate Bureaus Proposed, 535, 616, 657, 693, 874, 999
Amendment to Provide for Reparations Against Truckers and Forwarders Proposed, 950
Amendment to Require Adequate Lighting of Cabooses Proposed, 263
Amendments Proposed to, 184
Bill to Provide for Debt Adjustment Under I. C. C. Supervision, 117, 729, 980 (Elisha Friedman on)
Carrier Associations, Proposed Amendment Would Require Reports from, 184
Overcharge Claims, New Time Limit Proposed on, 575
Interstate Commerce Commission:
AB Brake Order, 66‡ (Correction), 532 (January 1, 1949 Deadline Set)
Accident Reports:
A. T. & S. F. Collision at Franconia, Ariz., 695
A. B. & C. Collision Near Talbotton, Ga., 421
A. C. L. Derailment at Walthourville, Ga., 77
A. C. L. Derailment Near Kissimmee, Fla., 45
B. & O. Collision at Philippi, W. Va., 577
C. St. P. M. & O. Collision at Worthington, Minn., 876
C. C. C. & St. L. Track Car Collision at Gard, Ill., 913
G. N. "Empire Builder" Collision at Michigan, N. D., 532, 837
G. N.-S. P. & S. Collision at Willbridge, Ore., 229

Interstate Commerce Commission:—(*Continued*)
Accident Reports:—(*Continued*)
M. C. Collision at Eaton Rapids, Mich., 313
M. P. Collision Near Plumerville, Ark., 422
N. P. Collision at Prosser, Wash., 728
P. R. R. Collision Near Milton, Pa., 230
St. L.-S. F. Collision Near Custer City, Okla., 422
S. A. L. Collision Near Richland, Ga., 532
Southern Collision at McGriff, Ga., 268
Southern Collision at Montview, Va., 268
Wabash Collision at Wabash, Ind., 76
Accounting Classification Modified, 313, 763
Accounting Order on Revenue Account for Protective Service-Perishable Freight Again Postponed, 41
Adjunct to Democratic Party?, 44
Administrative Procedure Bills Opposed, 46
Appropriation, Additional, for 1945-46 Sought, 695, 911, 951, 1033
Appropriations for 1944-45, Some, to be Returned, 41
Armor Plate Rates Cut and Reparations Awarded, 458; Rate Order Modified, 913
Attitude on Alternate Carload Minima, 97, 140, 222, 400†, 411
Automobile Rate Case, Report on Reconsideration of, 117, 876
Barnard, G. M., Named Chairman for 1946, 999
Bill to Return Roads in Reorganization to Owners Under Certain Conditions Opposed, 1063
Bureau of Traffic: W. V. Hardie Retires, 1064
Bureau of Transport Economics and Statistics:
Fuel Statistics, More Detailed, Advocated, 715
Monthly Review of Statistics, 73, 261, 454, 616, 837, 1000
Number of Women Railroad Employees, 228, 697
Rate Division Practices of Motor Truckers, 187
Receiverships and Trusteeships as of June 30, 1945, 839
Salaries Over $10,000 in 1944, 661
Bureau of Valuation:
Construction Guide Prices, 621
Construction Indices for 1944, 249
Bureau of Water Carriers and Freight Forwarders: C. R. Seal Named Director, 1062*
C. of N. J. Proposed Commutation Fare Increase Suspended, 950
C. & N. W. Manitowoc Terminal Charges, 314
Circuity in Requiring Through Routes to be Considered, 182
Class Rate Case (See Class Rate Case)
Clinchfield Mines to Get Two Branches, 453, 917, 1037
Coal Rates, Anthracite, to New York Piers Reduced, 698
Coal Rates to Youngstown, O., Report on, 660
Conditions for Protection of Employees in Abandonment Cases Interpreted, 582
Depreciation for Road Property on Class II and III Railroads, 43
Depreciation Rates for Equipment, 227, 452
Electric Railways' Status Under Railroad Retirement, Railroad Unemployment Insurance and Carriers' Taxing Acts, 545
Exempted from Government Agency Reorganization Law, 496, 534, 619, 1063
Five-Day Week Established, 385
Free Transportation, Will Not Aid Employees in Seeking, 839
Freight Classification Case (See Class Rate Case)
Freight Forwarder Regulation: Contracts Between Forwarders Must be Filed, 536, 875
Grain Rate Proportionals, Ex-Barge; Operation Delayed, 615
G. M. & O.-Alton Merger Approved by, 513*, 956
Hell Gate Bridge "Toll" Called Unreasonable in Proposed Report, 762
Holiday Working Schedules, 1003
H. & M. Fares, Order on, 1000
Intermediate Point Rule Interpreted, 342
Intrastate Fare Case, Supreme Court Asked for Rehearing of, 114
Iron and Steel Articles; Nonestablishment of Alternative Minima at Different Rates Found Not to be Unreasonable, 222
Johnson, Col. J. M., too Busy to Resume Full Duties, 950
K. C. S. Merger Accounting Report, 45, 657
King, H. C., Succeeds W. F. Kirk as Diversion Agent, 726, 729
Lee, W. E., Reappointed, 915, 951, 1003
Lighterage Definition Being Considered, 421
Minnesota Transfer Tariffs Must Cover All Switching Services, 349
M. P. Served with Show Cause Order on Block Signal Installation, 839, 1034
M. P. Train Communication System Approved, 839
Motor Carrier Regulation: (See also Names of Companies)
Joint Certificates for Motor Routes Will Not be Authorized, 501
Rates on Salt from Kansas, Minimum, Prescribed, 951
Tighter Control Over Acquisitions Suggested, 729
Truck Control by Forwarder Owner, Commissioners Differ on, 620
Negro Diner Discrimination Complaint on T. & P. Dismissed, 118
Interstate Commerce Commission:—(*Continued*)
Patterson, W. J., Reappointed, 915, 951, 1003
Post Driving, Case Reopened Involving Accounting for, 263
Property Brokers' Practices Investigated, 422
Protective Service for Perishable Freight; Case Reopened, 877
Race Horse Transportation Banned, 68, 77; Ban Removed, 347
"Railroad Domination" Claimed by "American Aviation," 654
R. E. A. Depreciation Charges, 42, 693
R. E. A. Truck-Competitive Rates Called Unfair, 577
Rate Advance Case (See Rates, Freight)
Rate Bureaus, Bill to Give Legal Sanction to, 535, 616, 657, 693, 874, 999
Refrigerator Car Line Supervisors' Status, 46
Reorganization of Railroads (See Reorganization of Railroads)
Rules of Practice Amended, 420
St. L.-S. F. Roadmasters, Status of, 727
Service Orders, 45, 68, 75, 77, 111, 172, 221, 227, 259, 309, 347, 382, 419, 497, 536, 576, 661, 729, 730, 837, 875, 913, 952, 995, 1000, 1035, 1063
Service Orders Cancelled, 347, 385, 457, 497, 536, 576, 661
Southern Grain Rate Changes Postponed, 575
Supreme Court Rules That "Discretion" Extends to Future, 763
Swift Tariff Interpretation Case, 342
Switching Allowances to Fruit Growers Supply Company by S. P. and W. P. Not Allowed, 384
Train Communication Systems, Bill to Give I. C. C. Power to Require Installation of, 764, 1001
Train Dispatching, Bill Proposes I. C. C. Control of, 763, 1000
Transportation of Explosives Act, New, Favored, 264
Warehousing and Storages Practices at North Atlantic Ports: Investigation Dropped, 999
Water Carrier Regulation:
Permit for Landing Craft Service for Trucks Denied, 659
W. S. A. Authorized to Operate Temporary Domestic Service, 382, 419, 453, 497; Seeks to Extend Service, 1035
Waybill Study Proposed, 911
Wharfage Allowance Granted to the Army, 348
Wool Rate Probe Reopened, 73, 268, 913
Inventions and Economics, 510†
Inventories:
Materials on Hand (Monthly), 1936-1945, 16, 601, 683, 992
Perpetual and Annual, P. & S. Div. Report on, 31
P. & S. Div. Report on, 32
Investment Bankers Association: Rate Increase Seen Essential, 948
Investment Made in Railroads of Value in Performing War Job, 569
Iranian State Railway:
M. R. S. Ceases Operation of, 67
30 Months of M. R. S. Railroading on, 142*
Iron and Steel Articles: I. C. C. Finds Nonestablishment of Alternative Minima at Different Rates Not to be Unreasonable, 222

J

Jacksonville Terminal: Dual-Frequency Yard Communication, 336*
Jet Locomotive Smoke Consumer and Silencer, L. & N. Improved Type A Steam-Air, 518*, 670†
Jol-Tread Floor Plates, 164*
Jones & Laughlin Steel Corporation: Checker-Surfaced Rolled-Steel Floor Plates, 164*
Journal Bearings:
Deflector Housing 169*
Hot-Box Statistics, Monthly Freight Car, 155
Lid with Dirt-Deflecting Strip, 168*
Magnus Metal Corporation Refinements, 166*
Millerpax: Packing Waste, 164*
Packing Retaining Devices: Mech. Div. Report, 156
Practices in Packing; Mech. Div. Report, 155*
Journal Boxes (See Journal Bearings)

K

Kansas City Southern:
Fined for Elkins Act Violation, 727
Kansas City Ticket Office Has New Orleans Motif, 1057*
T. & F. S. Merger Accounting, I. C. C. Report on, 45, 657
Kansas Suspends Low Minimum Weight on Livestock Carload, 177
Kentucky Frees Highway Transport of General Taxes, 906
Kentucky Seeks Increased Taxes from Southern Pacific, 905
Kenworth Motor Truck Corporation to Build Plant at Renton, Wash., 47
Klystron Tube Adapted for Train Communication, 559*
Koppers Asidbar Treatment for Soft Wood, 902

L

L. C. L. Traffic in Northwest Increased by Truck Strike, 995, 1027, 1035
"Labor": Railroads' "Staggering Profits," 51†*, 195†, 399† (Correction)
Labor:
Has Labor Only "Rights," Not "Duties"?, 356†, 471†
Prices for, Mech. Div. Report on, 148
Labor Disputes, Southeastern Shippers' Advisory Board Decries, 1031
Labor-Management Conference Held in Washington, 728
Labor Relations, Stalemate in, 925†
Labor Unions:
Assets of, 226
B. & M. Self-Improvement Program, 98
Collective Bargaining, 846†
Employee Suggests Co-operation with Management, 833‡
"52 for 40"; S. B. Pettengill on, 912
Pullman-Standard Allowed to Sue for Libel, 998
Purchasing Power of the Forgotten Three-Fourths, 885†
Responsibilities of, 833‡
Richberg, D. R., Warns on Short-Sighted Policies, 117
Since Trouble-Makers Can't Lose, They Won't Subside, 905
Supreme Court to Hear Reargument in Case Involving Authority of Collective Bargaining Agent, 660, 764
U. M. W. Efforts to Organize Railroad Employees, 377
View of Postwar Railroad Prospects, 9, 376, 545†, 553, 833‡
Laboratory, Testing, on the Southern, 289*
Lachman, Charles, Company, Inc.: Quilted Hair Insulation, 169
Lamp Agreements, New G. E.-Westinghouse, 182
Land Grant Rates:
Bill for Repeal of Remaining Provisions, 43, 78, 228, 499, 571, 615, 698, 726, 875, 950, 999 (Signed by President)
Fertilizer Shipped to England Under Lend-Lease Held Not to be Military Freight, 1032
Land Grants:
Setting the Record Straight on, 682*
Maps Exaggerate Grants to Railroads, 682*
Legal Decisions: (See also U. S. Supreme Court)
Decisions Refusing Creditor Permission to Intervene in Alton's Petition for Bond Issue to be Appealed, 379
Elkins Act Violations, 621, 727
Fertilizer Shipped to England Under Lend-Lease is Not Military Freight, 1032
New Jersey Rail Tax Law Void for 1941, 426
Pullman Sale of Sleeping Cars to Railroads Upheld, 370, 425, 721, 758, 831, 934, 993, 1026, 1059
Pullman-Standard Permitted to Sue Union for Libel, 998
"Superseniority" Awarded a Veteran, 419
T. & P. Fined for Failure to Observe Published Tariffs, 950
Violations of Rules Governing Transportation of Explosives, Roads Fined for, 534, 576, 875, 951, 999
Legislation, Pending, Senators' Parting Shots on, 267
Lift Trucks (See Trucks, Industrial)
Lighterage, I. C. C. Considers Definition for, 421
Lighting:
Fluorescent, for Cars, 854*
Measuring Light in Dollars, 969†, 989
Plastics, Undesirable Features of, 989
Lights, Mars Figure-Eight Oscillating Red Warning, 1024*
Lima Locomotive Works, Inc.:
French "Liberation" Locomotives, 401*, 451
Western Maryland Shay Locomotive, 549*
Livestock, Kansas Suspends Low Carload Minimum Weight on, 177
Loading Rules, Mech. Div. Report on, 156
Locomotive Boilers (See Boilers, Locomotive)
Locomotive Construction; Mech. Div. Report, 153*
Locomotive Driving-Wheel Slippage, Device to Control, 164*
Locomotive Firebox (See Firebox)
Locomotive Headlights (See Headlights)
Locomotive Injector, Single-Lever Operated, 166*
Locomotive Maintenance Officers' Association: Ideas from Employee Suggestion Systems, 890
Locomotive Performance:
Comparison of Steam and Diesel Switchers and Road Engines on St. L. S. W., 940
D. & R. G. W. Diesel Freight Locomotives, 639*
Diesel-Electric, I. C. C. Reports on, 261, 455, 838
Horsepower Ratings for Steam Locomotives, 605*
Modern Power Saves Train-Miles on St. L. S. W., 936*
Weaknesses Due to High Coal Combustion Rates, 941*
Locomotive Shops of N. P. at Livingston, Mont., Modernized, 973*
Locomotive Smoke (See Smoke)
Locomotive Stoker Grate, Sectional-Type, 171*

GENERAL INDEX—Continued

[Illustrated articles are indicated thus; Editorials thus†; Letters to Editor thus‡]*

Locomotive Supply:
- Installations: Six Months, 116; Seven Months, 342; Eight Months, 495; Nine Months, 655; Ten Months, 870; Eleven Months, 1028
- On Order: July 1, 116; August 1, 342; September 1, 495; October 1, 655; November 1, 869
- Production, First Six Months of 1945, 189
- Production Under WPB Allotment Plan, 390
- Utilization in Passenger Service, 802*
- WPB Removes Production Controls, 111, 132†

Locomotives:
- Atomic Energy for Propulsion of; Ralph Lucas on, 451
- British Were Ready with Postwar Designs, 434†
- Coal Becomes Aggressive in Development of, 926†
- Coal-Burning, Research to Improve, 530
- Comparison of Steam and Diesel Operations; Superintendents' Report on, 524
- Comparison of Steam and Diesel Switchers and Road Engines on St. L. S. W., 940
- Costs (See Costs)
- Diesel-Electric:
  - Alco-G.E. 600-Hp. Road and Switching, 115*
  - Basis for Analysis of Operating Costs Needed, 634†
  - Cost of Maintenance and Operation, 2†
  - Fire Protection for, 684*
  - M. & J. Oil Filter Element, 866*
  - N. Y. C. Mobile Fueling Units, 62*
  - N. Y. S. & W. Shift to, 42 and 338‡ (Correction); Completion of, 389
  - Number Owned by Railroads, 349
  - Performance (See Locomotive Performance)
  - P. & S. Div. Report on Ordering and Caring for Parts, 30
  - Repair Facilities (See Shops)
  - S. A. L. 3000-Hp. Locomotive, 946
  - Southern Instruction Cars, 364*, 848*
  - Standardization of Trucks for Switchers, 153
  - Study the Costs Before Removing Riders, 2†
  - Texas Mexican First Road to be Completely Dieselized, 338‡
  - Traveling Maintainers; D. & R. G. W., 639
- Electric:
  - Great Northern Order for, 1065
  - Virginian Orders Four M. G. Type, 840
- Fuel and Power Consumption in 1944, 124, 172
- Lubrication of, Mech. Div. Report on, 155
- Number in Use in Europe, 68, 220
- Outlook for; Dr. J. B. Ennis on, 970*
- Passenger Progress, Physical, Aspects of, 779†
- Postwar Problems; C. B. Byrant on, 6
- Refinement of Existing Designs Will Produce Tomorrow's Power, 802*
- Steam:
  - "Air-Conditioned" Cabs, 968†
  - British "Liberation" 2-8-0 Type, 434†, 443*
  - French "Liberation" 2-8-2 Type, 401*, 451
  - German High-Speed Passenger, 862*
  - German 2-10-0 Condenser Type, 339*, 1051*
  - Horsepower Ratings for, 605*
  - L. & N. E. "Dwight D. Eisenhower," 1002*
  - N. Y. C. 4-8-4 Niagara Type, 480*
  - P. R. R. 4-4-6-4 Q-2 Type, 1014*
  - Performance Weaknesses Due to High Coal Combustion Rates, 941*
  - Selection of Coal for, 942*
  - Utilization, Increasing the; Superintendents Report on, 526
  - Western Maryland Shay Geared Type, 549*
- Steam Turbine: Mixing Prime Movers, 284† 304‡
- War Department Declares Surplus Stock of, 692

London & North Eastern:
- Capital Expenditures, 1940-1944, 495
- Locomotive "Dwight D. Eisenhower," 1002*
- Travel Comfort Survey Conducted, 611, 997

London, Midland & Scottish:
- Coaches, New, 459
- Operations During the "Blitz," 560*
- War Damage Reported by, 505

Long Island: Passenger Equipment on Order, 828

Loss and Damage: (See also Claims)
- Egg Shipments in 1944, 42
- Payments in 1944, 567
- Payments in 1945 Estimated, 1013†
- P. & S. Div. Report on Prevention of, 20
- Stopping the Leak, 474†

Louisville & Nashville:
- Advertisement Invites Public Confidence, 581
- Employee Suggestion Awards, 388, 955
- Locomotive Smoke Consumer and Silencer, 518*, 670†

Lubrication of Cars and Locomotives, Mech. Div. Report on, 155

Lumber:
- N. P. Tree Farms to Insure Supply of, 571
- Placed Under Inventory Control by WPB, 766
- P. & S. Div. Report on, 22

M

M. & J. Filter Element, 866*

Machines for Cribbing, 707†

Magnus Metal Corporation: Lubrication and Bearing Refinements, 166*

Maguire Industries, Inc.: Reading Train Communication Tests, 948

Maintenance in Yards, Roadmasters' Report on, 491

Maintenance of Equipment:
- D. & R. G. W. Diesel Freight Locomotives, 639*
- Locomotives, Diesel-Electric, P. & S. Div. Report on Ordering and Caring for Parts for, 30
- Locomotives, Diesel-Electric; Study the Costs Before Removing the Riders, 2†
- Protect Work and Workers, 54†
- Rip Tracks Should be Improved, 707†

Maintenance of Way:
- Economy in Track Maintenance Needed, 399†, 444*
- I. C. Safety Record, 655
- Mechanization Advances, 635†
- Millennium is Not Yet, 322†
- Need for Achieving Maximum Efficiency with Greatest Economy Possible, 927†
- New Attitude Demanded Toward, 321†
- Railroads' Future and the Engineer, 1017*
- Section vs. Extra Gangs, 886†
- Use of Highway Trucks for, 676
- Wanted: Track Workers, 53†, 510†

Maintenance of Way Club of Chicago: The Railroads' Future and the Engineer, 1017*

Maintenance of Way Materials, P. & S. Div. Recommendations for Handling of, 29

Maintenance of Way Work Equipment:
- Field Repair and Maintenance of, 478
- "We Ain't Seen Anything Yet," 547†

Make-Work Rules:
- Operating Unions Seek to Increase. 179, 195†, and 399† (Correction), 231, 254‡, 301, 993
- Railroads Seek Modification of, 302

Management:
- Collective Bargaining, 846†
- Employee Suggests Labor Unions Co-operate with, 833‡
- For More Effective "Staff Work," 472†
- How Industry Can Make Friends for Itself, 1053
- How the Accounting Department Can Assist, 333
- Importance of N. A. M.'s Revised Public Relations Set-Up, 357†, 376*

Manpower Shortage (See Employees: Shortage of)

Manufacturers' Program for Prosperity, 1013

Mars Figure-Eight Oscillating Red Warning Lights, 1024*

Masonry, Old, Grouting of, 676

Materials and Supplies:
- Exchange of, P. & S. Div. Report on, 28
- Inventories (See Inventories)
- Maintenance of Way, P. & S. Div. Report on, 29
- Orders of Interest to Railroads Issued by WPB and OPA, 39, 72, 178, 221, 260, 309, 386, 423, 501, 578, 661, 731, 766, 877, 915, 953, 1003, 1065
- Prices, Mech. Div. Report on, 148
- Pricing, P. & S. Div. Report on, 32
- Purchases (See Purchases)
- Railroads to Benefit by Army Procurement Reduction, 308
- Reconversion Program Outlined for WPB, 283†, 311, 344, 386
- Simplification and Standardization, P. & S. Div. Report on, 19
- Specifications for, Mech. Div. Report on, 147

McCarthy, T. J., Steamship Company: I. C. C. Certification Upheld by Supreme Court, 763

Measuring Light in Dollars, 969†, 989

Medal (Kennedy) Awarded to J. M. R. Fairbairn, 946

Medal of Honor Awarded to A. C. L. Conductor, 457

Mergers (See Consolidations)

Metal Corrosion Tests at Kure Beach, N. C., 594*

Metallurgy Symposium to be Held, 417

Metals, Light, Future of; Inaccuracies in Testimony Before Senate Committee, 565‡

Mexican Rail Worker Recruitment Program to Cease, 385, 421, 510†; Why the Rush in Sending Mexicans Home?, 1044†

Mexican Railway Company, Mexico Opens Negotiations for Purchase of, 265

Mexicans, WMC Funds for Recruiting, 38, 110

Mexico:
- De Camp, R. J., Named Chief of U. S. Railway Mission to, 906
- Embargo on Tank Cars Modified, 417
- Restrictions on Car Movements Extended, 347, 869

Mexico North Western: Plans to Rehabilitate, 758

Michigan Central: I. C. C. Report on Collision at Eaton Rapids, Mich, 313

Micro-Filming, Railroad Use of, 22

Middletown & Unionville: Reorganization Proceedings, 271

Mid-West Shippers' Advisory Board:
- Committees Hold One-Day Meeting, 182
- Meeting of, 653

Military Railway Service (See United States Department of War)

Miller Waste Mills, Inc.: Journal-Box Packing Waste, 164*

Millerpax; Journal-Box Packing Waste, 164*

Minnesota Transfer: Tariffs Must Cover All Switching Services, 349

Mississippi Valley Historical Review: "Railroad Land Grant Legend in American History," 682*

Missouri-Kansas-Texas:
- Fraser, D. V., Elected President, 712*
- Historical Booklet Issued by, 226
- Morfa, R. J., Elected Chairman, 540, 602*
- Streamlined Trains Ordered by, 580, 828

Missouri Pacific:
- Collision Near Plumerville, Ark., I. C. C. Report on, 422
- "Eagle" Makes Extra Run for Servicemen, 687
- Employer's Liability Case; Supreme Court Decision, 763
- Passenger Equipment Ordered by, 119, 828
- Public Relations Training Programs, 807*
- Reorganization Proceedings, 351
- Show-Cause Order for Signal Installation Issued by I. C. C., 839, 1034
- Train Communication System Approved by I. C. C., 839
- Transcontinental Train Service Proposed, 997

Missouri Valley, U. S. Department of the Interior Prepares Plans for, 115

Modernization of Buildings:
- Harrison, G. M., on, 545†, 553
- Stations Must "Go Modern," 816*

Monopolies:
- Full Employment Plus General Poverty, 592†
- Railroad; Pelley Nails a Canard, 873, 886†

Monopoly Charges Against the Railroads Filed by U. S. Department of Justice, 132, 208, 413‡, 529, 691, 692, 946

"Monopoly" of Pacific Coast Bus Operations Charged by Department of Justice, 693

Motion Picture: N. & W. Film on the Coal Burning Steam Locomotive, 227

Motor-Alternator for Passenger Cars, 167*

Motor Carrier Rates:
- R. E. A. Rates in South Called Unfair, 577
- Rate Division Practices, I. C. C. Report on, 187
- Salt from Kansas, Minimum Rates Prescribed for, 951

Motor Carriers:
- Attitude on Transportation Policy; L. F. Orr on, 372
- Bill to Provide for Reparations Against, 950

Motor Coach Operations: Pacific Coast "Monopoly" Charged by Department of Justice, 693

Motor Coaches:
- Production, First Half of 1945, 189
- Production Under WPB Allotment Plan, 390
- P. & S. Div. Report on, 23*

Motor Truck Lines in Chicago; Return to Private Owners Delayed by ODT, 226

Motor Truck Operations:
- Fifth Morning Delivery Between St. Louis, Mo., and California, 451, 512†
- I. C. C. Denies Permit for Landing Craft Service, 659
- ODT Allows Some New Operations, 117
- ODT Operations to Cease Nov. 1, 697

Motor Truck Operators: I. C. C. Report on Rate Division Practices of, 187

Motor Truck Strike in Chicago 41, 226

Motor Truck Traffic: Monthly Loadings: May, 42; June, 225; July, 418; August, 568; September, 725; October, 947

Motor Trucks:
- Army Use in France Questioned by Senate Committee, 68
- ODT Eases Allocation Procedures, 76
- Production, First Half of 1945, 189
- Production Under WPB Allotment Plan, 390
- P. & S. Div. Report on, 23*
- Rationing to End December 1, 456
- Use by Bridge and Building Department, 676

Movies (See Motion Pictures)

N

Nashville, Chattanooga & St. Louis: C. T. C. on 207 Miles of Dixie Route, 647*

National Association of Manufacturers:
- How Industry Can Make Friends for Itself, 1053
- Public Relations Set-Up Reorganized, 357†, 376*

National Association of Railroad & Public Utilities Commissioners:
- Annual Meeting, 984*
- Decisions Assuring Jurisdiction Over Intrastate Rail Rates Approved by, 984

National Association of Shippers' Advisory Boards: Annual Meeting, 380, 610, 653, 680, 691*

National Cash Register Company: Ticket-Selling Machine Installed on the Southern, 946*

National Highway Users Conference: "Price System" Renounced by, 926†

National Industrial Traffic League:
- Annual Meeting, 933
- President Speaks on U. P. Broadcast, 450

National Malleable and Steel Castings Company:
- Deflector Journal-Box Housing, 169*
- Journal-Box Lid Sealed Against Dirt, 168*

National Mediation Board:
- Appropriations for 1945-46, 39; Additional Appropriations Sought, 911, 951, 1034
- Employee-Representation Elections, 43, 73, 76, 227, 266, 345, 423, 534, 574, 659, 697, 765, 876, 952, 1003, 1064
- Exempted from Government Agency Reorganization Law, 501, 535, 619, 1063
- Mediators, New, Appointed, 615
- O. R. T. Six-Day Week Demand Met, 44, 224
- Wage Proceedings Begun by, 1030, 1063

National Patent Council Formed, 699
National Railroad Adjustment Board:
Appropriations for 1945-46, 39
Exempted from Government Agency Reorganization Law, 501, 535, 619, 1063
Management-Labor Conferences Held to Discuss Difficulties of, 230
Supreme Court to Hear Reargument in E. J. & E. Case Involving Authority of Collective Bargaining Agent, 660, 764
National Railway Appliances Association: No Exhibit Planned for 1946, 869
National Railway Historical Society Officers, 760
National Railway Labor Panel:
Controls Eased by Wage "Thaw," 383
Emergency Board Reports:
C. P. R. Dispute, 263, 421
D. L. & W. Dispute, 311, 421
Northern Pacific Dispute, 913, 1033
Pacific Electric Dispute, 765, 1002
R. E. A. Dispute, 118, 383, 620, 763, 907
Southern Pacific Dispute, 186
Washington, Idaho & Montana Dispute, 186
National Safety Council: Report on Safety in Shops and Enginehouses, 740†, 754*
National War Labor Board (See Office for Emergency Management)
Negro Discrimination (See Race Discrimination)
Net Income: Monthly: April, 185; May, 267; June, 500; July, 613; August, 872; September, 1029
Net Railway Operating Income: Estimate for 1945, 1059
New Deal Economic Dictum, 834
New England, Outlook for the Future of, 567
New England Railroad Club: The Railroads' Environment Has Changed, 858
New England Shippers' Advisory Board Meeting, 449, 495, 567
New Jersey Rail Tax Law Void for 1941, 426
New Jersey, Rains Cause Heavy Damage in, 185
New South Wales Rys.: Operating Results, 391
New York Central:
"Advance Commodore Vanderbilt" Collision, 870
American Express to Act as Foreign Agent, 640
C. C. C. & St. L. Law Department Discontinued, 76
Coal and Ore Terminal Planned at Toledo, 80, 840
"Company Manners" Handbook, 342*
Diesel Fueling Units, Mobile, 62*
Dining Car Employees Arrested for Thefts, 377
Fined for Explosives Rules Violation, 534
Grand Central "Sky" Rejuvenated, 520*
Holiday Music in Grand Central Station, 1026
Locomotive, 4-8-4 Niagara Type, 480*
"Out on the Line" Booklet, 945
Passenger Equipment Ordered, 829, 1005, 1035
Passenger Preference Surveys Conducted, 786
Salute to Returning Servicemen, 273
Service Disrupted by Heavy Rains, 186
718th Battalion Operations, 329; Awarded Meritorious Service Unit Plaque, 416
Sleeping Car Preferences Surveyed, 786
Station, New, at Toledo, Planned, 654
Tablet in Grand Central Honors Veterans, 599*
"Twentieth Century" Red Carpet Rolled Out Again, 614
Voice of the Passenger, 94†
Women Travel Representatives Ride "Empire State," 570*
New York, Chicago & St. Louis:
Economics of Converting Automatic Block Signaling to Centralized Traffic Control, 603
Merger with C. & O. Planned, 339, 462, 504, 664, 733 (Offer Withdrawn by C. & O.)
Transcontinental Train Service Proposed, 871
New York Herald Tribune: Admonition on Coast-to-Coast Trains, 914
New York, New Haven & Hartford:
Aid in Rehabilitation of Blind Veterans, 656
Booklet on Industrial New England, 836
Cedar Hill Y. M. C. A. Building Dedicated, 41
Conductivity of Fire Streams Tested, 608*
Employee Suggestion System Operations, 269
Employee Training Program Extended, 614
Food-Handlers' School a Success, 494
Hell Gate Bridge "Toll" Called Unreasonable in I. C. C. Proposed Report, 762
Holiday Music in Grand Central Station, 1026
Menus Changed Daily, 910
"Owl" Now an All-Parlor Car Train, 70
Passenger Equipment Ordered by, 1065
Passengers Carried in Last Five Years, 961
Reorganization Proceedings, 121
Train Communication Experiments Conducted in 1885, Report on, 224
Troop Movements at New High, 494
Veterans Returned to Service, 771
New York-New Jersey Area, Survey of Potential Air Freight in, 906
New York Railroad Club:
Annual Dinner, 871
Railroads in the Invasion of Europe, 865
New York State: Transportation Policy, Pre-Civil War Vintage, 432†
New York, Susquehanna & Western:
Dieselization of Motive Power, 42 and 338‡ (Correction); Completion of, 389
Service Disrupted by Heavy Rains, 186
New York Times:
New Deal Economic Dictum, 834
Railway Labor Act a Model for Industrial Peace?, 994
Significance of Britain's Election, 214
Wages and Prices Are None of the Government's Business, 688
Norfolk & Western:
Employee Benefit Payments, 59
Motion Picture on the Coal Burning Steam Locomotive, 227
755th Shop Battalion Awarded Meritorious Service Unit Plaque, 378; Joins in Belgian Celebration, 609; Medals Awarded to Four Former Employees, 910
North Carolina Intrastate Fare Case, I. C. C. Asks Supreme Court Rehearing on, 114
Northern Pacific:
Bozeman Tunnel in Operation, 224
Collision at Prosser, Wash.; I. C. C. Report, 728
Diesel Repair Shop at Auburn, Wash, 359*
Emergency Board Report on Wage Dispute, 913, 1033
Locomotive Shops at Livingston, Mont., Enlarged and Modernized, 973*
Supporting Assets An Aid to, 438*
Tree Farms to Insure Supply of Ties, 571
Northland Greyhound Lines Allowed to Purchase Wisconsin Bus Line, 913
Northwest Shippers' Advisory Board Meeting, 220
Northwestern University: R. C. Overton Named Professor of Business History, 112*
Nuclear Energy, What of, 887†

O

Oak Ridge, Tenn., Railroad at, 853*
Office for Emergency Management:
Committee on Fair Employment Practice: Appropriation for 1945-46, 38, 116
National War Labor Board: Wage Controls Relaxed, 344
Office of Defense Transportation:
Appropriations for 1944-45, Some, to be Returned, 41
Appropriations for 1945-46, 38, 116, 1034
Barges, Wooden, for Oil Movement, Discontinued, 76
Business Urged to Co-operate in Travel Curtailment, 68
Car Handling, Seeks to Overcome "Let-Down" in, 765
C. of N. J. Authorized to Restore Suburban Trains, 456
Controls Being Relaxed, 345, 384, 419, 500
Convention Controls Lifted, 346, 423, 456; Mileage Saved by, 729
Dinner to Honor Col. J. M. Johnson, 869, 990
Egg Loading, More Careful, Urged, 39
End of C. M. P. Won't Retard Equipment Production, 390
Equipment Produced under WPB Allotment Plan, 390
Equipment Production, First Half of 1945, 189
Export Controls Eliminated, 384, 574, 660
Export Controls Save Many Car-Days, 500
Grain Loadings, Reports on, 36, 67, 110, 182, 220, 423, 1029
Grain Permit System on Great Lakes Ended, 692
Great Lakes Towing Company Taken Over, 953
Group Traveling on Trains Banned, 172; Permits for, 258, 346; Restrictions to be Lifted, 499
Highway Department Offices Closed, 452, 952
Illinois Central Taken Over by, 378
Johnson, Director, Criticizes Government Co-operation in Preparing for Redeployment, 173, 216
Kansas Suspends Low Minimum Weight on Livestock Carload, 177
"Kirk" Orders for Moving Traffic to Pacific Coast, Extent of, 727, 847†
Liquid Transport Department to be Discontinued, 420
Liquidation of, 500, 680
Motor Carrier Operations, New, Allowed, 117
Motor Truck Allocation Procedures Eased, 76
Motor Truck Operations to Cease Nov 1, 697
Motor Truck Rationing to End December 1, 456
Motor Vehicle Controls Relaxed, 345, 384
Pacific Coast Traffic to Increase, 36
Passenger Cars Put Under Control of, 109
Permit for Light-Loading of Grain Cars Explained, 258
Port Traffic Control Committee Dissolved, 692
Race Horse Transportation Banned, 38, 68, 77, 178; Ban Removed, 346
Railroad Controls Relaxed, 345, 384, 419
Railroads Still Hit by Labor Shortage, 659
Railway Transport Department Changes, 38
Refrigerator Car Supply Still Tight, 728
Refrigerator Cars, Minimum Loading Requirements Increased for, 1000
Reservations, Five-Day Limit on, 37; 14-Day Limit on, 419
Return of Chicago Trucks to Private Operators Delayed, 226
Sleeping Cars on Runs of 450 Miles or Less Prohibited, 68, 107, 110
Office for Emergency Management:—(*Continued*)
Office of Defense Transportation:— (*Continued*)
Staff Changes, 38, 67, 420, 456, 499, 532, 578, 693, 726, 727, 1033
Tank Car Controls Relaxed, 220, 345, 384
Tank Car Reports, Daily, Suspended, 71
T. P. & W. to be Returned to Owners as "Soon as Practicable," 383; On October 1, 452
Uniform Car Occupancy Standards for Military Services Set Up, 173
WPB Steel Allotments in Fourth Quarter, 284†, 308
Western Colleges Reduce Travel, 39
Western Fruit and Vegetable Shipments Above 1944, 177
Young, Brig. Gen. C. D., Resignation of, 727
Office of the Co-ordinator of Inter-American Affairs: Rail Mission to Colombia, 341
War Manpower Commission:
Funds for Recruiting Mexicans, 38, 110
Manpower Controls Lifted, 344
McNutt, P. V., Urges Men to Seek Employment on the Railroads, 177
Mexican Rail Worker Recruitment Program to Cease, 385, 421, 510†
Rail Equipment Plants Given High Priority Rating, 268
Western Roads Given Top Priority Rating, 109
War Production Board:
Construction Order Further Relaxed, 456; Order Revoked, 658
Control Over Production of New Locomotives and Cars Removed, 111, 132†
Controlled Materials Plan to Be Revoked, 344, 390
Elimination of Controls, 661
Equipment Bureau Formed, 108
Filing of Monthly Reports Under M-293 Discontinued, 383
Freight Car Production Lags, 37
Freight Cars on "Critical" List, 68
Lumber Placed Under Inventory Control, 766
Orders of Interest to Railroads, 39, 72, 178, 221, 260, 309, 386, 423, 501, 578, 661, 731, 766, 877, 915, 953, 1003, 1065
Outlook for Railroad Employment in Immediate Post-war Period, 308
Passenger Car Production Authorized, 108
Railroad Equipment Produced Under Allotment Plan, 390
Reconversion Plans, 283†, 311, 344, 386
Steel Allotments in Fourth Quarter, 284†, 308
Steel, Railroads Must Have More, 259
Taxicab Production Authorized, 111
To be Terminated November 3, 619
"War Time," No Longer Interested in, 383
Western Railroads Placed on National Production Urgency List, 177
War Shipping Administration:
Temporary Domestic Water Service Authorized by I. C. C., 382, 419, 453, 497; Extension of Service Asked, 1035
Watercraft, Domestic; Control on Transfers Lifted, 458
Office of Defense Transportation (See Office for Emergency Management)
Office of Price Administration:
Axles, Steel Forged, Prices Raised on, 1032
Dawdles with Tie Crisis It Has Caused, 94†
Orders of Interest to Railroads, 39, 72, 178, 221, 260, 309, 386, 423, 501, 578, 661, 731, 766, 878, 915, 953, 1003, 1065
Premium Pricing for Export Sales of Relaying Rail, 382
Reconversion Plans, 347
Tie Price Ceilings Raised, 108, 575
Wheels, Wrought Steel Freight Car, New Ceiling Prices on, 660
Office of the Co-ordinator of Inter-American Affairs (See Office for Emergency Management)
Office of War Mobilization and Reconversion:
"From War to Peace: A Challenge," 344
Third Quarter Report of, 36
To Study Guaranteed Wage Proposals, 181
Ohio Valley Transportation Advisory Board Meeting, 1028
Oil Filter Element, M. & J., 866*
Oil Movement:
P. A. W. Asks Cut in Westward Movement of, 345
P. A. W. Lifts Restrictions on, 383
Rail Movement an Epic of War-Time Transportation, 511†
R. F. C. to Drop Transport Subsidies, 345
Operating Efficiency, War-Time Economies Must Be Kept to Retain, 757
Operating Studies:
How Britain's Railroads Kept Running During the "Blitz," 560*
How I. C. Handled War-Time Traffic, 636*
Modern Power Saves Train-Miles on St. L. S. W., 936*
Moving Traffic in Winter; C. P. R., 928*
N. Y. S. & W. Shift to Diesel Power, 42 and 338‡ (Correction); Completion of, 389
Results of Railway Operation in World Wars I and II Compared, 556
S. A. L. Silver Meteor Revenue Study, 435*
Speeding Up Yard Operations, 523
Supporting Assets Aid Northern Pacific, 438*
Opinion Research Corp.: Fifth Survey of Railroad Transportation, 705†, 717*

GENERAL INDEX—Continued

[Illustrated articles are indicated thus; Editorials thus†; Letters to Editor thus‡]*

Order of Railroad Telegraphers: Six-Day Week Demand Met, 44, 224
Order of Railway Conductors:
Emergency Board Reports:
Georgia & Florida Dispute, 186, 312, 380
Northern Pacific Dispute, 913, 1033
Ore Terminal at Toledo Planned by N. Y. C. and B. & O., 80, 840
Otis & Company: Bid Made for Pullman Sleeping Car Facilities, 370, 758, 831, 934, 993, 1026, 1059
Overcharge Claims, New Time Limits Proposed on, 575

P

Pacific Coast Bus "Monopoly" Charged by Department of Justice, 693
Pacific Coast Traffic:
Increase in First Half of Year, 312
"Kirk Orders" for Diversion of, 727, 847†
No Decline Foreseen in, 342
Railroads Hampered by Labor Shortage, 659
Railroads Prepare for, 180
Redeployment Plans, 173, 180, 215, 216, 256, 789*
To Increase 40 Per Cent More, 36
Transcontinental Lines' Past and Present Traffic Compared, 455
Troops and Army Cargo Handled Since Pearl Harbor, 496
Wanted: Track Workers, 53†
Pacific Electric: Emergency Board Report in Jurisdictional Dispute, 765, 1002
Pacific Greyhound Lines: Anti-Trust Suit Filed by Department of Justice, 693
Packaging Methods and Materials, Better, Being Sought, 474†
Packaging Problems, Railroads Aid Shippers with, 1013†
Paint Brushes, Standards for Purchasing, 475†
Paint, Corrosion-Resistant, for Air Brake Parts, 152
Painting:
Color Dynamics, 591†
Grand Central "Sky" Rejuvenated, 520*
Interior; B. & B. Report on, 675
Panama Canal Should Pay Its Own Way, 609‡
Passenger Fares:
Airlines Reduce, 448*
C. of N. J. Seeks to Increase Commutation Fares, 662, 950
Hell Gate Bridge "Toll" Called Unreasonable in I. C. C. Proposed Report, 762
H. & M., I. C. C. Order on, 1000
H. & M. Seeks Larger Share of, 695
Intrastate Fare Case, I. C. C. Asks Supreme Court Rehearing on, 114
Railroad and Airline, 338‡
Time to Weigh Reductions in, 338‡, 414‡
What the Passenger Wants, 783
Passenger-Miles: Estimate for 1945, 36, 69, 385, 1058
Passenger Progress Coming Again, 777†
Passenger Progress, Physical Aspects of, 779†
Passenger Reservations:
Army Reservation Bureau Operations, 793*
C. P. R. New Facilities for Handling, 691*
ODT Places Five-Day Limit on, 37; 14-Day Limit, 419
Passenger Service:
A. T. & S. F. Questionnaire On, 530, 788
B. & O. Plans for Improving, 732
Can Passenger Service Be Made to Yield a Profit?, 778†
C. of N. J. Authorized by ODT to Restore Suburban Trains, 456
Check Room in C. P. R. Cafe-Parlor Car, 104*
C. & N. W. New Women's Lounge, 572*
Chicago-Florida Service, Plans to Renew, 757
Cultivating the War-Time Traveler, 99*
Dining Service, Better, 53†
Innovations in Car Designs for, 795*
Keeping Cars Clean, 197†
L. N. E. R. Travel Comfort Survey, 611, 997
N. Y. C. Passenger Preference Surveys, 786
N. Y. C. Women Travel Representatives to Ride Trains, 570*
N. Y. N. H. & H. Changes Menus Daily, 910
ODT Prohibits Use of Sleeping Cars on Runs of 450 Miles or Less, 68, 107, 110
ODT Relaxes Controls Over, 345, 419
On Station Cleanliness, 474†
Passenger Preference Studies Conducted by Railroads, 784
Pegler, Westbrook, on, 646
Public Address Systems an Aid to, 822*
Pullmans for the Veterans, 52†
St. L. S. F. Passenger Preference Surveys, 788
S. A. L. Passenger Preference Surveys, 788
Those Dirty Windows, 433†
Thoughtfulness in Emergencies, 4†
Time to Merchandise, 590†
Training Employees in Tactful Behavior, 805*
Transcontinental, Proposals for, 189, 781, 871, 915, 951 (Sent. Wheeler on), 997
Treatment of Soldier Passengers, 414‡
Voice of the Passenger, 94†
War Entertainers Praise the Railroads, 530
Western Roads Assign Trains to Exclusive Military Use, 263
What the Passenger Wants, 780†
What the Railroads Are Doing About, 781*
Passenger Stations (See Stations, Passenger)
Passenger Traffic: (See also Troop Movements)
A. A. R. Committee Studies, 785
C. N. R. Montreal Terminal Traffic, 273
Competition, Outlook for, 782
Give Preference to Civilian Traffic, 320†, 414‡
Holiday Travel Jam Hits Peak in West, 1058
How Army's Cutbacks Will Affect, 344
N. Y. N. H. & H. Five-Year Record, 961
Occupancy Ratio of Passenger Cars, 262
Outlook for 1945, 36, 69, 385, 792
Pleasure Travel Seen for Late 1946, 905
Potentialities of the Vacation Travel Market, 590†
Prospects for, 1061
Passes (See Free Transportation)
Patent Council Formed, 699
Pennsylvania:
Chicago-Florida Streamliners Planned, 459, 757
Collision Near Milton, Pa.; I. C. C. Report, 230
Detectors, Dragging Equipment, 368*
Dining Car Service, Better, Promised, 418
Hell Gate Bridge "Toll" Called Unreasonable in I. C. C. Proposed Report, 762
H. & M. Seeks Larger Share of Fares, 695
Locomotive, 4-4-6-4 Q-2 Type, 1014*
Military Travel Since Pearl Harbor, 909
Motor Truck Operations, Joint Board Recommends Investigation of, 914
Passenger Equipment on Order, 829
Pittsburgh Freight Station Operations Mechanized, 678*
"Pittsburgher" a Reserve-Seat Coach Train, 70
724th Battalion Awards, 308, 612
756th Shop Battalion Completes Car Building Program, 833*
Smoke-Violation Suit Filed by Chicago, 871, 909
Train, New Reserve-Seat, from Chicago to the East, 690
Wrecking Cranes, New, 904*
Pennsylvania Frees Highway Transport of General Taxes, 906
Pennsylvania Truck Lines, Inc.: Joint Board Recommends Investigation of, 914
Pere Marquette:
C. T. C. Installed; Grandville, Mich.-Fennville, 55*
Coast Guardsmen Trained by, 266
I. C. C. Report on C. & N. W. Terminal Charges at Manitowoc, 314
Machine for Cribbing, 707†
Merger with C. & O. Planned, 339, 462, 504, 664, 733, 957
Passenger Equipment on Order, 829
Perishable Handling:
Air Transport; Col. L. H. Brittin on, 42
Protective Service for, I. C. C. Reopens Case Involving, 877
Will Public Pay for Air Shipments?, 877
Personnel Relations (See Industrial Relations)
Petroleum Administration for War:
"Big Inch" Pipe Line Operations, 386
Cut in Westward Movement of Oil Asked, 345
Restrictions on Oil Transport Lifted, 383
Philippine Islands, M. R. S. Railroading on, 672*
Piles and Piling Driving, B. & B. Report on, 676
Piles, Shotcrete-Encased, Driven by Southern, 888*
Pipe Insulation, G-B Flexible, 168*
Pipe Lines:
A. A. R. Views on Disposal of Government-Owned Pipe Lines, 454
"Big Inch", in Operation Two Years, 386
Bills to Keep the Big Inch and Little Big Inch Lines in Operation, 1034
Government to Discontinue Operation, 499, 534
R. F. C. Reduces Rates, 420
Plastics as Applied to Lighting Installations, Undesirable Features of, 989
Plates, Floor, Safety-Surfaced Steel, 164*
Poem Dedicated to Soldier Killed in a Locomotive Cab, 909
Political Leadership Against Socialism, 1†
Pooled Cars Do Not Always Move the Fastest, 847†
Post Driving, I. C. C. Reopens Case Involving Accounting for, 263
Poster Contest for High School Students Suggested, 867‡
Postwar Air Services Previewed, 73
Postwar Equipment Plans (See Cars, Freight; Cars, Passenger)
Postwar Plans of the I. C. C., 638
Postwar Purchases (See Car Supply; also Purchases)
Postwar Railroad Prospects, A Union View of, 9, 376, 545†, 553, 833‡
Postwar Technological Problems; C. B. Bryant on, 5
Postwar Traffic Changes; W. C. Kendall on, 599
Postwar Travel, C. M. St. P. & P. Booklet Invites Veterans to Enjoy, 341
Power Brakes (See Air Brakes)
Power Parts Company: Pratt Window Curtain, 900*
Pratt Window Curtain, 900*
President Truman:
Comment on Unified Services, 1043†
Goes New Deal, 431†
Passage of St. Lawrence Seaway Pact Urged, 574, 589†
Pelley, J. J., and J. Carter Fort Call on, 1027, 1060
President Truman:—(*Continued*)
Public Works Proposals Included in Message to Congress, 456
Says Western Railroads Must Have Men, 109
Wage-Price Policy Outlined, 344, 728, 739†
Prices:
Axles, Forged Steel, Higher Ceilings on, 1032
Cars, Passenger, Now on Order, 824*
Construction Guide, Issued by I. C. C., 621
Labor and Materials; Mech. Div. Report, 148
None of the Government's Business, 688
OPA Dawdles with Tie Crisis It Has Caused, 94†
President Truman's Wage-Price Policy, 344, 728, 739†
Railroad and Industrial Stocks Compared, 51†*
Relaying Rail Regulations, OPA Clarifies, 382
Ties, OPA Raises Ceiling Price on, 108, 575
Wheels, Wrought Steel Freight Car, OPA Sets New Ceilings on, 660
Pricing Methods, P. & S. Div. Report on, 32
Printing, P. & S. Div. Report on, 21
Private Enterprise (See Free Enterprise)
Procurement Officers, Job Isn't Finished for, 3†, 13*
Profit-Sharing Plan Proposed by C. of N. J., 564
Profits in Industry, Need for; S. O. Dunn on, 58, 858
Programs, Two, for Peace-Time Prosperity, 281†
Property Brokers, I. C. C. to Investigate Practices of, 422
Prosperity, Manufacturers' Program for, 1013†
Prosperity, Peace-Time, Two Programs for, 281†
Provisional Organization for European Inland Transport, 456
Public Address Systems:
I. C. Chicago 63rd. St. Station, 650*
Passenger Service Improved by, 822*
Public Aids to Transportation, B. I. R. Report on, 535
Public Misunderstanding of Railroads' Competitive Policy, 886†
Public Opinion: Fifth Survey of Railroad Transportation, 705†, 717*
Public Relations:
A. A. R. Rated in "Tide" Survey, 227
B. & O. Courtesy Booklet for Employees, 1013†
B. & O. Don Herold Booklet, 183*, 449
C. of N. J. Offers Vacated Stations as Community Centers, 909
C. B. & Q. Program, 99*
C. M. St. P. & P. Booklet Invites Veterans to Enjoy Postwar Travel, 341
Cultivating the War-Time Traveler, 99*
Formula for Railroad Prosperity; W. A. Johnston on, 644
How Industry Can Make Friends for Itself; Holcombe Parkes on, 1053
I. C. Completes 25 Years of Advertising, 723*
Making Friends with the Annual Report, 1020*
N. A. M. Reorganization of, 357†, 376*
N. Y. C. "Company Manners" Handbook, 342*
Poster Contest for Students Suggested, 867‡
Southern Publicizes Its Advertising Campaign for the South, 725
Time for Courtesy, 1012†
Training Employees in Tactful Behavior, 805*
Public Uninformed of Railroads' Handicaps, 705†, 717*, 867‡
Public Works Programs; G. M. Harrison on, 381
Public Works Proposals Included by President Truman in Message to Congress, 456
Pullman Company:
Cars Assigned to Troop Movements, 793
Sale of Sleeping Car Facilities to Railroads Upheld by Court, 370, 425, 721, 758, 831, 934, 993, 1026, 1059
Sleeping Car Contracts Cancelled, 341
Third Fleet Moved in 700 Pullmans, 689
Pullman, Inc.: Sale of Sleeping Car Facilities to Railroads Upheld by Court, 370, 425, 721, 758, 831, 934, 993, 1026, 1059
Pullman-Standard Car Manufacturing Company:
Cafeteria Car, Quick-Service, 716*
Casino Car Designed by, 380*
First Postwar Passenger Car Body Completed, 677*
Grillroom Car Designed by, 262*
Libel Suit Against Union Allowed, 998
Living Room Car Designed by, 498*
Passenger Car Plant to be Enlarged, 416
Passenger Car Production to Start in Fall, 75
Postwar Car Designs Exhibited, 448, 797*
Railroad Equipment Contracts Held by, 341
Seat, Full-Length Reclining, 169*
Strikes Cause Delay in Building Troop Cars, 875; Cots Used in Cars, 907, 949
Strikes, Two, Called in Plant of, 613
Pullmans for the Veterans, 52†
Purchases:
First Half of 1945, 600*
Monthly: January, February and March, 14*; April, 207; May and June, 600*; July, 683; August, 853; September, 992
Postwar Estimates of, 432†
Railroads Heavy Buyers in Shop Equipment Market, 1045†
Purchases and Stores Department: Job Isn't Finished for, 3†, 13*
Purchasing for Highway Vehicles, 23*
Purchasing of Maintenance of Way Materials, 29
Purchasing Paint Brushes, Standards for, 475†

Purchasing Power:
Forgotten Three-Fourths, 885†
Full Employment Plus General Poverty, 592†
Profits Are Also, 431†
Stalemate in Labor Relations, 925†

Q

"Quiz" Book, New, Issued by A. A. R., 688

R

Race Discrimination: T. & P. Diner Complaint Dismissed, 118
Radiation Units, Wilson General-Purpose, 167*
Radio Broadcasts Sponsored by Atlantic States Shippers' Advisory Board, 492, 530, 567; by National Association of Shippers' Advisory Boards, 610, 653, 681, 691*
Radio for Western Union Trunk Lines, 711*
Radio Frequency Allocations, A. A. R. Explains, 7
Radio General and Operating Rules Prepared for Railroads by A. A. R., 348
Radio Microwave Relay System Demonstrated by Bell Telephone Laboratories, 761*
Radio Operators, Railroad, Need No Licenses, 347
Radio Service Rules Adopted by F. C. C., 863, 1065
Radio Systems, AM and FM, Tested by A. T. & S. F., 612*
Radio Train Communication (See Train Communication)
Rail:
Miles of Track by Weight of Rail, 838
OPA Allows Premium Pricing for Export Sales of Relaying Rail, 382
Postwar Problems; C. B. Byrant on, 5
Preventing Damage; Roadmasters' Report, 478
Production, First Half of 1945, 189
Production in 1944, 604
WPB Fourth Quarter Allotment, 284†, 308
Welding Problems; C. B. Byrant on, 6
Yard for Reclaiming Rail, 26*
Railroad Credit Corporation: Distribution of Revenues, 39, 229, 872
Railroad Equipment Plants Given High Manpower Priority Rating by WMC, 268
Railroad Operations in War Zones: (See also United States Department of War: Army Transportation Corps: Military Railway Service)
Argonne Forest Railroad Operations, 449
Bengal & Assam Operations, 34*
Captured Locomotive Named for Gen. Gray, 339*
Equipment Used in Europe, Amount of, 68, 220, 379, 865
German Roads Inspected by M. R. S., 570
Handling of Equipment for European Invasion; Col. S. H. Bingham on, 865
Iran Diesel Shop Battalion Sets Up New Depot at Munich, 341
Iran, 30 Months of Railroading in, 67, 142*
Luzon, P. I., M. R. S. Railroading in, 672*
Military Honors Awarded for, 70, 71, 216, 220, 258* 305*, 307, 308, 339, 341, 378, 380, 416, 417, 529, 530*, 531, 570, 571, 586, 610, 612, 613, 687, 689*, 724, 725, 760, 764*, 834*, 910, 946
M. R. S. Electrical Men Perform Remarkable Job in Germany, 417
One Day's Work of M. R. S. in Europe, 328*
Redeployment Operations at Oise, 216
Tonnage in European Theatre Increased, 68
Railroad Retirement Account: Appropriation for 1945-46, 39
Railroad Retirement Act:
R. L. E. A. Program for Liberalizing, 43, 75, 231, 535, 696
Status of Electric Railways Under, 535
Railroad Retirement Board:
Appropriations for 1945-46, 39
Exempted from Government Agency Reorganization Law, 501, 535, 619, 1063
One Billionth Dollar Payment Issued, 43
Personnel Needs on the Railroads, 659
Railroad Situation, Need for Impartial Study of, 705†, 867‡
Railroad Unemployment Insurance Act:
R. L. E. A. Program for Liberalizing, 43, 75, 231, 535, 696
Status of Electric Railways Under, 535
Railroad Y. M. C. A. (See Young Men's Christian Association)
Railroads Slow to Defend Themselves, 254‡
Railroads' "Staggering Profits", 511*, 195†
Railroads' Transportation Policy; L. F. Orr on, 371
Railway Age Freight Progress Annual: Comments on C. W. Braden's Article, 252
Railway Age Reply to Rep. Lea's Questionnaire on National Transportation Policy, 892
Railway & Locomotive Historical Society, Inc.: Bulletin No. 66, 494
Railway Express Agency, Inc.:
Air-Express Shipments, 426
Business Decline Looked for, 418
Cited by Navy for War Work, 995
Contracts with Star-Route Mail Carriers Approved by I. C. C., 912
Depreciation Accounting Charges, 42, 693
Emergency Board Reports on Wage Dispute, 118, 383, 620, 763, 907
New York Elevator Strike Causes Embargo, 531
Strike Delayed Pending Board Investigation, 620; Strike Called Off, 907
Truck-Competitive Rates Called Unfair, 577
Railway Fuel and Traveling Engineers' Association: More Detailed Fuel Statistics Advocated, 715, 870 (Correction)
Railway Labor Act:
Amendments Suggested by *Railway Age*, 899
Model for Industrial Peace?, 994
No Magic Formula, 1011†
Status of Refrigerator Car Line Supervisors, 46
Supreme Court to Hear Reargument in Case Involving Authority of Collective Bargaining Agent, 660, 764
Railway Labor Executives Association:
Full Employment Bill Supported by, 381
Program for Liberalizing the Railroad Retirement and Railroad Unemployment Insurance Acts, 43, 75, 231, 535, 696
Railways Hit a Home Run, 969†
Rate Bureaus:
Anti-Trust Suit Against the Railroads, 132, 208, 413‡, 529, 691, 692, 946
Bill to Give Legal Sanction to, 535, 616, 657, 693, 874, 999
Georgia Equalization Rate Case, 310, 576, 1001, 1034
Shippers Approve of, Say W. R. Scott, 413‡
Smith, E. A., on Theories Expressed in A. C. Wiprud's Book, 211, 413‡ (W. R. Scott on)
Rate-Making:
Agreed Charges, Canada's Experience with, 750, 1025‡ (Correction)
Bill to Give Legal Sanction to Rate Bureaus, 535, 616, 657, 693, 874, 999
Chicago Association of Commerce Statement, 872
Competition in; W. R. Scott on, 413‡
Georgia Equalization Rate Case, 310, 576, 1001, 1034
Smith, E. A., on Theories Expressed in A. C. Wiprud's Book, 208, 413‡ (W. R. Scott on)
U. S. Department of Justice Charges Against the Railroads, 132, 208, 413‡, 529, 691, 692, 946
Rate of Return, I. C. C. Report on, 616
Rate Structure:
Class Rate Case (See Class Rate Case)
Northern States Prepare Fight Against More Changes in, 42
Rates, Air Express, Cut, 906
Rates, Equipment Depreciation (See Depreciation)
Rates, Freight:
Agreed Charges, Canada's Experience with, 750, 1025‡ (Correction)
Alternative Carload Minima:
Department of Commerce Discusses, 731
I. C. C. Still Cautious on, 222
Low Rates for Heavy Loads Should Build Traffic, 967†
Traffic Executives Assoc. Considers, 494
Wilson, G. Lloyd on, 96, 140, 400†, 411
Armor Plate Rates Cut and Reparations Awarded, 458; Rate Order Modified, 913
Automobile, I. C. C. Report on Reconsideration of, 117, 876
Class, I. C. C. Estimates Effect of Reduction on 1942 Revenues, 73
Coal, Anthracite, to N. Y. Piers, Reduced, 698
Coal, in Canada "Basically Low," 611
Coal, to Youngstown, I. C. C. Report on, 660
Critical Appraisal of A. C. Wiprud's Book, 208, 413‡
Figures Used by Governor Arnall Questioned by G. E. Mace, 231
Grain Rate Proportionals, Ex-Barge, 615
How to Retain Heavier Loads Per Car, 95, 140, 400†, 411
Increase Essential, Says Investment Bankers Association, 948
Increase Foreseen by William White, 997
Intermediate Point Rule Interpreted by I. C. C., 342
Iron and Steel Articles; I. C. C. Finds that Nonestablishment of Alternative Minima at Different Rates is not Unreasonable, 222
Rail and Air Compared, 877
Rate Advance Case (Ex Parte 148):
Carriers Consent to Extension of Suspension, 343
Expiration Date for Order Extended, 576, 615, 727
Southern Grain Rate Changes Postponed, 575
Through Routes, I. C. C. Will Consider Circuity in Requiring, 182
Uniform:
Class Rate and Freight Classification Cases (See Class Rate Case)
Georgia Equalization Rate Case, 310, 576, 1001, 1034
Sen. Stewart Plans More Agitation, 223, 265
Wool Rate Probe Reopened, 73, 268, 913
Rates, Land-Grant (See Land-Grant Rates)
Rates, Motor Carrier (See Motor Carrier Rates)
Rates, Pipeline (See Pipelines)
Reading Train Communication Tests, 948: Recorder for Train Communication Messages, 1050*
Receiverships as of June 30, 1945, 839
Reclamation:
Couplers; Mech. Div. Report, 150*
P. & S. Div. Report on, 25*
Rail Reclamation Yard, 26*
Reconstruction Finance Corporation:
Five-Mile Rail Line Offered for Sale, 496
Government Pipeline Operations to be Discontinued, 499, 534
Oil Transport Subsidies Being Dropped, 345
Pipeline Rates Reduced, 420
Reconstruction Finance Corporation:—(*Continued*)
Railroad Loans, Status of, 382
Relations with B. & O. Questioned by Sen. Wheeler, 310; Reply to, 381; 492
Reconversion:
President Truman Outlines WPB Program, 283†
Railroad Reconversion Problem; G. M. Harrison on, 9, 376, 545†, 553, 883‡
War Controls Lifted by Federal Agencies, 344
WPB Outlines Plans for, 311, 344, 386
Recordgraph for Recording Train Communication Messages, 1050*
Reflectors on Railroad Cars, Bill to Require, 731
Refrigeration Charges, I. C. C. Reopens Case Involving, 877
Refrigerator Car Line Supervisors, Status Under Railway Labor Act, 46
Regulation:
Aviation; State Commissioners Discuss, 985
One Transportation Agency Favored by Col. J. M. Johnson, 990
Railway Age Reply to Rep. Lea's Questionnaire on Transportation Policy, 893
Rate; E. A. Smith on Theories Expressed in A. C. Wiprud's Book, 208, 413‡ (W. R. Scott on)
Transport Chaos; D. D. Conn on, 529
Reorganization of Government Agencies Bill Passed, 267, 496, 534, 619, 875, 1063
Reorganization of Railroads:
Alton-G. M. & O. Merger Approved by I. C. C., 513*
A. T. & N. Expenses, 1037
Bill to Provide for Equal Participation by Security Holders of the Same Class in, 225
Bill to Return Roads to Owners Under Certain Conditions, 912; I. C. C. Opposes, 1063
C. of Ga. Plan Approved by I. C. C., 113, 879
C. of N. J. Proceedings, 733, 767
Changes in Capitalization, Debt and Fixed Charges Under I. C. C. Reorganization Plans, 695.
C. I. & L. Proceedings, 539, 956
C. M. St. P. & P. Proceedings, 80, 767, 879; Termination of, 911
C. R. I. & P. Proceedings, 880
F. E. C. Proceedings, 190, 271, 351, 390, 700
House Resolution for Investigation of Plans, 912
Middletown & Unionville Proceedings, 271
M. P. Proceedings, 351
N. Y. N. H. & H. Proceedings, 121
Railroad Credit Requires Fair Deal to Stock; Elisha Friedman on, 980
St. L.-S. F. Proceedings, 701, 734, 880
Senate Proposes to Investigate Delays in, 875
Slowness in Completing, Criticized by Senator Wheeler, 729
Tampa Northern Proceedings, 316
Tax Relief for Reorganized Roads Refused, 77, 109, 183
Voluntary Reorganizations Under I. C. C. Supervision, Bill Proposes, 117, 729, 980 (Elisha Friedman on)
Western Pacific Expenses, 918
Repair Shops (See Shops)
Reparations Payments by Truckers and Forwarders, Bill to Provide for, 950
Research:
A. A. R.'s Traffic Research Outlined, 40
Container Project, A. A. R., 722
Failures and Progress, 197†
For More Effective "Staff Work," 472†
Locomotive, Coal Burning, 530
Packaging Methods and Materials, Better, Being Sought, 474†, 1013†
Refrigerator Car Project, A. A. R., 722
"Seeing Eye" for the Railroad Industry, 669†
Reservoirs, Maintaining, B. & B. Report on, 677
Revenues and Expenses:
Canadian Roads, 44, 614, 945
Estimate for 1945, 1059
Great Britain's Share of Railway Revenues, 461
I. C. C. Estimates Effect of Class Rate Reduction on 1942 Revenues, 73
Monthly Detailed Figures: May, 86; June, 274; July, 466; August, 628; September, 772; October, 962
Monthly Summaries: May, 40, 240; June, 184, 256, 396; July, 341, 415, 544; August, 495, 568, 612 (Correction), 738; September, 688, 757, 924; October, 906, 944; November, 1030
Post-war Revenue Estimates, 657
S. A. L. Silver Meteor Revenue Study, 435*
Review of Railway Operations in 1944, 1058
Richmond, Fredericksburg & Potomac: Passenger Equipment Ordered by, 829
Rivers and Harbors Appropriations, Additional, for 1945-46 Sought, 951, 1034
Rivet, Cherry, 170*
Riveting, One-Man, 170*
Roadbed Grouting, Roadmasters' Report on, 477
Roadbed Stabilization, Roadmaster's Report on, 477
Roadmasters' & Maintenance of Way Association: One-Day Annual Meeting, 476*
Valuable Asset Indifferently Utilized, 671†
Roane-Anderson Railroad at Oak Ridge, Tenn., 853*
Roller-Bearing Box Car; C. R. I. & P., 311
Roller Bearing Lubrication, Mech. Div. Report on, 155
Rolling Stock in District of Columbia, Bill Passed to Tax, 224, 877, 914, 1032
Rubber, Synthetic Airfoam, 165*
Rules for Train Telephone Service, 863, 1065
Rules, Loading, Mech. Div. Report on, 156

GENERAL INDEX—Continued

[Illustrated articles are indicated thus; Editorials thus†; Letters to Editor thus‡]*

Rules of Practice Amended by I. C. C., 420
Rustless Iron & Steel Corporation Merger with American Rolling Mill Company Proposed, 580

S

Safety:
Railroad Safety Goal, 52†
Shops and Enginehouses; National Safety Council Report on, 740†, 754*
Safety Appeal Made to Employees by A. C. L., 710
Safety Posters, A. A. R., 269*, 307*, 581*, 614*
Safety Record of I. C. Maintenance of Way Department, 655
St. Lawrence Seaway:
Aiken, Senator, on, 231
Bills and Resolution Introduced in Congress, 231, 532, 574
Cost of, Estimated, 835
President Truman Asks Passage of Pact, 574, 589†
White, William, Finds Few Proponents for, 834
St. Louis Exhibition of Early Railroading, 182
St. Louis-San Francisco:
C. T. C. Installed; Monett, Mo.-Springfield, 485*
Collision Near Custer City, Okla., I. C. C. Report on, 422
Passenger Preferences Surveyed, 788
Reorganization Proceedings, 701, 734, 880
Roadmasters, I. C. C. Report on Status of, 727
Streamlined Trains Ordered by, 580, 829
Walkway on Denison Lake Bridge, 250*
St. Louis Southwestern: Modern Power Saves Train-Miles, 936*
St. Paul Union Depot Company:
Sno-Flyer, Snow and Ice Loader, 408*
Snow-Melter, Car-Mounted, 410*
Salaries Over $10,000 in 1944, 661
Salesmanship, "Blue Sky," 779†
Salesmanship, How to Improve; G. L. Wilson on, 488
Salesmanship, Need for Changes in, 474†
Salt Rates, Minimum Truck, from Kansas, Prescribed, 951
Savage, H. E., Jr.: I. C. C. Denies Permit for Landing Craft Service for Trucks, 659
Scholarships, Carl R. Gray, 25th Anniversary of, 450
School Children, Poster Contest Suggested for, 867‡
Scrap, P. & S. Div. Report on, 28
Seaboard Air Line:
Collision at Kollocks, S. C., 1031
Collision Near Richland, Ga., I. C. C. Report on, 532
Fertilizer Shipped to England Under Lend-Lease Held Not to be Military Freight, 1032
Fire Protection for Diesel Locomotives, 684*
Locomotive, 3000-Hp. Diesel-Electric, 946
Motor Truck Operations Cases Reopened by I. C. C., 115
Passenger Equipment on Order, 829
Passenger Preferences Surveyed, 788
722nd. Battalion has Youngest Engine Crew in E. T. O., 450
Silver Meteor Revenue Study, 435*
Seat, Coach, Dimensions Proposed for Recommended Practice, 158*
Seat, Coach, Full-Length Reclining, 169*
Seating Survey, Heywood-Wakefield, 418
Seatrain Lines, Inc.:
New Jersey Pier Site Sought, 758
Railroad Restrictions on Delivery of Cars to, 834, 905 (Correction)
Selective Service System:
Veteran Reemployment Rights, 536, 575
Western Railroaders May Still be Certified to Draft Boards, 382
Senate Committee on Interstate Commerce, New Member Named to, 729
Senate Committees:
Interstate Commerce: Resolution Proposing Transportation Investigation by, 222, 575, 951
To Investigate Petroleum Resources: A. A. R. Views on Disposal of Government-Owned Pipe Lines, 454
To Investigate the National Defense Program: Army Use of Trucks in France Questioned, 68
Hearings on Redeployment and the Domestic Transportation Situation, 173, 216, 1061
To Study and Survey Problems of Small Business Enterprises: Inaccuracies in Testimony on Future of Light Metals, 565‡
Senate Investigation of the Grain Car Shortage, Record Shows no Necessity for, 220
Senate Investigations of Transport Policy Proposed, 222, 224, 261, 574, 951
Senate Joint Resolution: For Approval of St. Lawrence Seaway Pact, 574
Senate Resolutions:
To Investigate Railroad Reorganization Delays, 875
To Provide for Air Transport Expansion, 232
To Provide for a 65-Cent Minimum Wage, 185
Senate to Print Nine B. I. R. Reports, 265
Senators' Parting Shots on Transportation Legislation, 267
Sheds, Movable, for Car Repair Operations, 54†
Shippers:
Attitude on Transport Policy: L. F. Orr on, 373
Freight Service Questionnaire of A. A. R. Seeks Shipper Views, 691
Heavy Carloads Promote Economy, Aid in Competition, 400†
How Shippers Can Improve Railway Service, 556
Railroads Aid with Packaging and Shipping Problems, 474†, 1013†
Warned on Transport Socialism by G. Metzman, 598
War-Time Car Handling and Loading Efforts Should be Continued, 635†, 757
What Shippers are Thinking About, 252
What Shippers May Expect from the Railroads, 1045†
Shippers' Regional Advisory Boards:
Atlantic States, 492, 530, 567, 598
Comparison of Estimated and Actual Car Loadings in First Quarter, 266; Second Quarter, 907
Estimates of Car Loadings in Third Quarter, 44; Fourth Quarter, 572, 599, 653; First Quarter of 1946, 1031
Mid-West, 182, 653
New England, 449, 495, 567
Northwest, 220
Ohio Valley, 1028
Southeastern, 1031, 1045†
Trans-Missouri-Kansas, 556
Shop Equipment Market, Railroads Heavy Buyers in, 1045†
Shops:
Diesel, Decisions to be Made Concerning, 590†
Diesel, Fire Hazards in, 846†, 856
N. P. Diesel Shop at Auburn, Wash., 359*
N. P. Locomotive Shops at Livingston, Mont., Modernized, 973*
Protect Work and Workers, 54†
Rip Tracks Should be Improved, 707†
Safety in; National Safety Council Report on, 740†, 754*
Value of Good Lighting in, 969†, 989
Shotcrete-Encased Piles Driven by Southern, 888*
Sicard Snow-Blower and Loader, 931*
Signaling: (See also Centralized Traffic Control)
Block:
Economics of Converting to Centralized Traffic Control, 603
G. N. Agrees to Signal Fargo Junction, N. D.-Surrey Line, 532, 837
I. C. C. Serves Show-Cause Order on M. P., 839, 1034
Economics of, Report on, 603
Passenger Train Time Saved by, 822*
Wabash Manual Block-Remote Control System, 133*
Silencer, Smoke Consumer, 901*
Silencer, Smoke Consumer and, Developed by Bituminous Coal Research, Inc., 518*, 670†
Simplification, P. & S. Div. Report on, 19
Sleeping Car Facilities: Sale by Pullman to the Railroads Upheld by Court, 370, 425, 721, 758, 831, 934, 993, 1026, 1059
Sleeping Car Operating Contracts Cancelled by Pullman, 341
Smoke Abatement: Smoke Consumer and Silencer Developed by Bituminous Coal Research, Inc., 518*, 670†
Smoke Consumer and Silencer Developed by Bituminous Coal Research, Inc., 518*, 670†
Smoke Consumer Silencer, 901*
Smoke-Violation Suit Filed Against Three Roads in Chicago, 871, 909
Sno-Flyer Snow and Ice Loader, 408*
Snow and Ice Loader, New, at St. Paul Union Depot, 408*
Snow-Blower and Loader, Sicard, 931*
Snow Hits Buffalo Area, 1030
Snow Loader, Barber-Greene, 931
Snow Melter, Car-Mounted; St. Paul Union Depot Company, 410*
Snow Removal Operations on the C. P. R., 928*
Socialism:
Political Leadership Against, 1†
Preservation of the American System, 8
Progress Toward, 129†
Progress Toward, in Britain and Here, 241†
Railroads' Environment Has Changed, 858
Shippers Warned on Transport Socialism, 598
Socialist, Any Business Looks Easy to a, 655
South Loses Last Cause for Complaint, 944
Southeastern Shippers' Advisory Board Meeting, 1031, 1045†
Southern Pacific:
Emergency Board Report on Working Rules Dispute, 186
Kentucky Seeks Increased Taxes from, 905
Morgan Line Will Not Be Revived, 869
Pacific Coast Bus "Monopoly" Charged by Department of Justice, 693
Public and Employee Relations Programs, 806, 808
Results in 1945 and Outlook for 1946, 1060
Switching Allowances to Fruit Growers Supply Company Not Allowed, 384
Trains for Exclusive Military Use, 263
Southern Pacific of Mexico: Two-Day Strike Ended by Wage Increase, 909
Southern Railway:
Booklet of Ads Publicizing the South, 225
Cars, Diesel Instruction, 364*, 848*
Collision at McGriff, Ga.; I. C. C. Report, 268
Collision at Montview, Va.; I. C. C. Report, 268
Fined for Explosives Rules Violation, 999
Machinists Stage Sympathy Strike, 908
Piles, Shotcrete-Encased, Driven by, 888*
707th and 727th M. R. S. Battalions to be Deactivated, 908
Testing Service, Fifty Years of, 289*
Ticket-Selling Machine Installed, 946*
Southern Railway (of England): Capital Expenditures, 1940-1944, 495
Specifications for Materials, Mech. Div. Report on, 147
Speed of Trains:
B. & O. Speeds Up Schedules, 946
D. & R. G. W. Quickens Schedules, 688
I. C. Speeds Up Passenger Service, 44
U. P. Speeds Up Schedules, 997
Sperry Gyroscope Company: C. R. I. & P., 2660 Megacycle Train Communication Installation, 559*
Spicer Generator and Compressor Drive, 170*
Spokane, Portland & Seattle: I. C. C. Report on Collision with G. N. Train, 229
"Staff Work," For More Effective, 472†
Standard Stoker Company: Sectional-Type Stoker Grate, 171*
Standard Time, Country Returns to, 535, 724
Standardization, P. & S. Div. Report on, 19
Standardization of Trucks for Diesel-Electric Switching Locomotives, 153
Standards, Commercial, for Hardware and Tools, 706†
Standards for Purchasing Paint Brushes, 475
States' Reliance on Federal Government for Money; H. W. Sumners on, 986
Stationery, P. & S. Div. Report on, 21
Stations, Freight: P. R. R. Mechanizes Operation at Pittsburgh, 678*
Stations, Passenger:
Co-operative Railroad-Community Action Needed to Improve, 741†
Need for Improvement in, 778†
N. Y. C. Plans New Station at Toledo, 654
On Station Cleanliness, 474†
Port Moody Station Moved by Rail, 264*
Stations Must "Go Modern," 816*
Statistics:
Fuel, More Detailed, Advocated, 715, 870
Fuel: Question of Equating Oil to Coal Basis, 473†
Operating Department Needs; Superintendents' Report on, 525
Steel:
Armco Zincgrip, 165*
Corrosion in Buried Concrete Structures; A. A. R. Electrical Section Report, 987*
Corrosion Tests at Kure Beach, N. C., 594*
Cor-Ten Cars After Ten Years' Service, 652
WPB Fourth Quarter Allotments, 284†, 308
WPB Says Railroads Must Have More, 259
Stocks: Railroad and Industrial Prices Compared, 51†*
Stoker Grate, Sectional-Type, 171*
Storage Practices at North Atlantic Ports, I. C. C. Drops Investigation of, 999
Storekeeping:
Diesel Locomotive Parts, 30
Highway Vehicles, 23*
Maintenance of Way Materials, 29
Stores Organization, P. & S. Div. Report on, 31
Stores Organization, P. & S. Div. Report on, 31
Streamlined Trains (See Trains)
Strikes:
B. of L. F. & E. Strike on I. C., 311, 339, 378
Cars for Troop Movements Held Up By, 779†, 875, 907, 949
C. A. & E., and C. N. S. & M., Strikes Delayed on, 43, 76, 226
Chicago Motor Truck Strike, 41, 226
Electro-Motive Plant Closed Because of, 906
Export Traffic at Houston Halted by, 690, 836
Georgia & Florida, 312, 380
Great Lakes Towing Company Taken Over by ODT, 953
L. C. L. Movements in Northwest Embargoed Due to Truck Strike, 995, 1027, 1035
Pullman Plant at Michigan City, Ind., 613
R. E. A. Strike Called Off, 620, 907
Railway Labor Act No Magic Formula, 1011†
Southern Machinists Stage Sympathy Strike, 908
S. P. of Mexico Strike Ended by Wage Increase, 909
Texas Electric, 43
T. P. & W. Strike Deadlocked, 531, 572, 610, 689, 759, 998
Subsidies:
Airport for Slater, Mo., An, 633†
Army and National Transport Policy, 845†
Attitude of Various Forms of Transportation on; L. F. Orr on, 371
Aviation Policy, 321†
B. I. R. Report on Public Aids to Transportation, 535
C. of C. Opposes Government Competition, 228
Edgar, Robert M., on, 613
Effect of Invention and Economics on, 511†
Federal Aid Swells Airline Profits, 416

Subsidies:—(*Continued*)
Gurley, F. G., on, 556
Harrison, George M., on, 381
Highway Users Group Renounces "Price System," 926†
Metzman, Gustav, on, 598
Oil Transport; R. F. C. to Drop, 345
Panama Canal Should Pay Its Own Way, 609‡
Pelley, J. J., on, 569, 721
President Truman on United Services, 1043†
Progress Toward Socialism, 129†
Public Uninformed of Railroads' Handicaps, 705†, 717*, 867‡
Railway Age Reply to Rep. Lea's Questionnaire on Transportation Policy, 897
Real Driving Force, The, 670†
St. Lawrence Seaway (See St. Lawrence Seaway)
Sumners, H. W., on States' Dependency on, 986
Tax Exemption for Permanent Roadway Improvements Proposed for Railroads, 557
T. V. A. and the Railroads, 242†, 255‡
"The Authority Issue," 319†
Transportation Policy, Pre-Civil War Vintage, 432†
Where "Free Enterprise" Has Abdicated to Politics, 131†
Superheater Company: Automatic Discharge Valve for Steam Dryer System, 167*
Supreme Court (See United States Supreme Court)
Survey of Current Business:
Future of the Railroads Surveyed, 696, 1061
Planned Capital Outlays of Railroads Surveyed, 228
Swift Tariff Interpretation Case, 342
Switching Allowances to Fruit Growers Supply Company by S. P. and W. P. Not Allowed by I. C. C., 384
Switching Service Performed by C. & N. W. at Manitowoc for Pere Marquette and Ann Arbor, I. C. C. Report on, 314
Switchmen's Union of North America: Dispute with D. & R. G. W. Submitted to Arbitration, 73
Switzerland: Electric Traction Enabled Railroads to Handle War Traffic, 873

T

T-Z Quick-Acting Blower Valve, 169*
Tampa Northern: Reorganization Proceedings, 316
Tariff Construction and Interpretation Case Involving Swift & Company, I. C. C. Report on, 342
Tariff Covering Car Spotting Services Filed by Eastern Roads, 232
Tariffs Must Cover All Service of Rail-Owned Switching Line, 349
Tariffs, Printing of, 21
Tax Exemption for Permanent Roadway Improvements Proposed for Railroads, 557
Tax Relief for Reorganized Railroads Refused, 77, 109, 183
Tax Relief Measure Passed, 838
Taxation:
Bill to Tax District of Columbia Rolling Stock Passed, 224, 877, 914, 1032
B. I. R. Report on, 696
Excess Profits Tax Cut, Possible Benefit to Class I Roads of, 454
Highway Transport Freed of General Taxes by Kentucky and Pennsylvania, 906
Kentucky Seeks Increased Taxes from S. P., 905
New Jersey Rail Tax Law for 1941 Void, 426
Railway Age Reply to Rep. Lea's Questionnaire on Transportation Policy, 896
Taxicabs, 9,000, Authorized by WPB, 111
Technological Improvements, Railroads Accused of Restraining, 132, 208, 413‡, 529, 691, 692, 946
Telegraph:
F-M Carrier, Installed by B. & O., 690
Radio for Western Union Trunk Lines, 711*
Telephone Microwave Relay System Demonstrated by Bell Telephone Laboratories, 761*
Teletype Service Extended on B. & O., 226
Temperature Control Services, I. C. C. Reopens Case Involving, 877
Tennessee Valley Authority: Reply of W. L. Sturdevant to Editorial in *Railway Age*, 242†, 255‡
Terminals:
C. N. R. at Montreal, Traffic Handled at, 273
C. & N. W. Women's Lounge in Chicago, 572*
Chicago, New Terminal Proposed for, 996
Grand Central "Sky" Rejuvenated, 520*
I. C. Train Sheds at Chicago and New Orleans Renovated, 1046*
Testing Laboratory on the Southern, 289*
Tests:
C. & N. W. Radio Telephone Equipment, 406*
Coach Seat Dimensions Proposed for Recommended Practice, 158*
Conductivity of Fire Streams, 608*
Corrosion Test Plant at Kure Beach, N. C., 594*
Dual-Frequency Yard Communication; Jacksonville Terminal, 336*
I. C. Tests Train Communication, 226, 742*
Radio, AM and FM, Compared by A. T. & S. F., 612*
Texas & New Orleans:
Emergency Board to Hear Hospital Board Labor Dispute, 950
Pecos River Bridge, 75 (Correction)
Texas & Pacific:
Employees' Magazine, New, Issued, 721
Fined for Failure to Observe Tariffs, 950
Negro Diner Discrimination Complaint Dismissed by I. C. C., 118
Passenger Equipment Ordered by, 119, 830
Texas Electric, Strike Halts Service on, 43
Texas Mexican: First Railroad Completely Dieselized, 338‡
Through Routes, I. C. C. Will Consider Circuity in Requiring, 182
Ticket Outlets, Airlines Plan Convenient, 689
Ticket Sales, Black Market, Wheeler Bill to Curb, 44; Lea Bill, 72
Ticket-Selling Machine on the Southern, 946*
Tickets, Airline, Simplified, 225
Ties:
Mechanical Handling Equipment, Progress of A. W. P. A. Survey of, 691
N. P. Tree Farms to Insure Supply of, 571
OPA Dawdles with Crisis It has Caused, 94†
OPA Raises Ceiling Prices on, 108, 575
Preservation Statistics for 1944, 642*
Production Outlook Still Dark, 740†
Renewal Statistics for 1944, 137*
Shortage of, P. & S. Div. Report on, 22
Toledo, Peoria & Western:
Strike in Deadlock, 531, 572, 610, 689, 759
To be Returned to Owners as "Soon as Practicable," 383; On October 1, 452
Traffic Offices Closed as Strike Continues, 998
Tolls Favored by Chicago Association of Commerce, 868
Ton-Miles:
Chart Comparing 1945 with 1929, 1941 and 1944, 181*, 312*, 450*, 655*, 908*, 1030*
Estimate for June, 116; July, 342; August, 500; September, 652; October, 871; November, 1028
Estimate for 1945, 36, 385, 1058
Tools, Commercial Standards for, 706†
Towmotor's New Industrial Tractor, 902*
Track:
Cribbing, Machines for, 707†
Curve Reduction, Reasons for, 4†
Economy in Maintenance Needed, 399†, 444*
Gage Conversion in Australia, 554*
G. N. Curve Reduction Program, 745*
Need for Improvement in, 778†
Postwar Problems; C. B. Byrant on, 5
Roadbed Grouting, Roadmasters' Report on, 477
Stabilization of, Roadmasters' Report on, 477
Standards, Higher, Needed, 399†, 444*
Tailoring Tracks for Faster Trains, 812*
Track of the Future, 399†, 444*
Track Circuit Equipment, Coded; Wabash, 135
Track Maintenance Labor, 53†, 510†
Tractor, Towmotor, 902*
Trade Barriers: *Railway Age* Reply to Rep. Lea's Questionnaire on Transportation Policy, 898
Traffic Club of New York: Officers Elected, 909
Traffic Executives Association: Hearing on Dual Minimum Rates, 494
Traffic Salesmanship, How to Improve; G. Lloyd Wilson on, 488
Traffic Solicitation:
Acquainting Off-Line Solicitors with What They Are Selling, 779†
Need for Changes in, 474†
Train Communication:
A. T. & S. F. Tests AM and FM Radio, 612*
B. & O. Orders Radio-Telephone Equipment for New Castle Yard, 377
Bill to Give I. C. C. Power to Require Installation of Systems, 764, 1001
C. N. R. Equips Yard with Radio Telephone, 870*
C. & N. W. Tests Radio Telephone Equipment, 406*
C. R. I. & P. Laboratory Car for Testing, 300*
C. R. I. & P. Uses 2660 Megacycles for, 559*
Dual-Frequency Yard Communication; Jacksonville Terminal, 336*
G. N. Tests Radio Telephone, 494
I. C. Tests Space Radio and Inductive System, 226, 742*
Klystron Tube Adapted for, 559*
M. P. Application Approved by I. C. C., 839
N. Y. N. H. & H. Reports Experiments Conducted in 1885, 224
Passenger Train Time Saved by, 822*
Radio Frequency Allocations, A. A. R. Explains, 7
Radio General and Operating Rules Prepared by A. A. R., 348
Radio Operators Need No Licenses, 347
Reading Starts Tests of, 948, 1050*
Recorder for Making Record of Messages, 1050*
Rules Governing the Application and Use of Radio for, 863, 1065
Speeding Up Yard Operations with, 523
Train Dispatching, Bill Proposes I. C. C. Control of, 763, 1000
Train Sheds at Chicago and New Orleans Renovated by I. C., 1046*
Train Speed (See Speed of Trains)
Training of Chinese Engineers in American Motor Transport Begun, 75*
Training of Chinese Engineers on American Railroads, 225*
Training of Employees:
American Express Travel Course, 724*
Apprentice Training, Time to Revive, 398†
B. & M. Self-Improvement Courses, 98
Courtesy, Need for Training in, 1012†
Creation and Development, of an Effective Division Staff; Superintendents' Report, 526
Dining Car Food-Handlers' School, 257*, 494
How to Improve Traffic Salesmanship, 488
Instruction Car on Western Maryland, 60*
N. Y. N. H. & H. Extends Program, 614
Safety in Shops and Enginehouses, 740†, 754*
Southern Diesel Instruction Cars, 364*, 848*
Survey of Railroad Programs for, 805*
Visual Education for Freight Handlers, 713*
Trains:
B. & M. Resumes Snow Trains, 995
"California Zephyrs" Ordered, 662
C. & O. Orders Streamlined Trains, 189
C. B. & Q. Starts Two Trains as "Experiments," 530
Chicago-Florida Streamliners Planned, 459
C. R. I. & P. Adds New Train, 264
D. & R. G. W. New "Prospectors," 688
Equipment on Order, 824*
Equipment Ordered by M. P. and T. & P., 119
General Motors Astra Liner, 179*, 203*, 800*
M-K-T and St. L.-S. F. Order New Equipment, 580
P. R. R. to Establish New Reserved-Seat Train Between Chicago and the East, 690
S. A. L. Silver Meteor Revenue Study, 435*
Streamliners, List of, 810*
Victory Loan Trains, Railroad, 870
Western Roads Assign Trains to Exclusive Military Use, 263
Trans-Canada Airways: Expansion Planned, 654
Transcontinental Passenger Train Service Proposed, 189, 781, 871, 915, 951 (Sen. Wheeler on), 997
Trans-Missouri Kansas Shippers' Advisory Board: How Shippers Can Improve Railroad Service, 556
Transportation Act of 1940: Through-Routes Provisions; I. C. C. Will Consider Circuity in Requiring Through Routes, 182
Transportation Association of America:
"Integration" Idea Misrepresented, 758
Origin of Smear Attack Revealed, 311
Transportation Census Proposed, 1034
Transportation Facilities:
"Cyclo-Tractors" Suggested as a Solution for Shortages in Europe, 512†
Department of Commerce Report on, 385
House Committee Shows Concern Over, 71
Plowman, E. G., Warns That Increase in, May Bring Rate Rise, 653
Railroad Service Requisitioned but Not Provided for, 196†
Senate Special War Investigation Committee Hearings on Troop Handling, 173, 216, 1061
Transportation Leadership, Where Is, 371
Transportation of Explosives Act, New, Proposed, 180, 264
Transportation Policy:
Army and, The, 845†
Attitude of Various Forms of Transportation on; L. F. Orr on, 371
Aviation Policy, 321†
Canada Concerned Over Financing, 340
Chicago Association of Commerce on, 868
Conn, Donald D., on, 529
House Committee to Investigate, 74, 93†, 112, 130†, 223, 868, 876, 892
One Regulating Agency Favored by Col. J. M. Johnson, 990
Pre-Civil War Vintage, 432†
Public Misunderstanding of Railroads' Competitive Policy, 886†
Railway Age Reply to Rep. Lea's Questionnaire on, 892
Realistic, Need for; J. J. Pelley on, 721
Senate Investigations Proposed, 222, 224, 261, 574, 951
Union League Club of Chicago on, 972
What Shippers are Thinking About, 252
Transportation, Public Aids to, B. I. R. Report on, 535
Transportation Situation, Senators' Parting Shots on, 267
Travel:
Air Priorities for Short Trips Banned, 110
Air Priorities to End Soon, 423
Baseball Clubs to Travel by Rail in 1946, 969†
Business Urged to Co-operate in Curtailing, 68
C. P. R. Tourist Trade Outlook for 1946, 836
C. M. St. P. & P. Booklet for Veterans, 341
Civilian, Give Preference to, 320†, 414‡
Convention Ban Lifted in Canada, 763
Convention Controls Lifted by ODT, 346, 423, 456; Mileage Saved by, 729
Controls to Remain, Says F. M. Vinson, 36
"Don't Travel" Appeals Being Dropped, 459
Educational Value of, 198†
Full Pleasure Travel Seen for Late 1946, 905
Group Travel on Trains Banned by ODT, 172; Permits for, 258, 346; Restrictions to be Lifted, 499
Holiday Traffic Jam Hits Peak in West, 1058
ODT Places Five-Day Limit on Reservations, 37; 14-Day Limit, 419
ODT Relaxes Controls Over, 345, 419
Passenger Situation; J. J. Pelley on, 947
Potentialities of the Vacation Market, 590†
Senator Wheeler Would Reduce Travel by Government Employees, 37
Western Colleges Reduce, 39
Tree Farms Established by N. P., 571

GENERAL INDEX—Continued

[Illustrated articles are indicated thus; Editorials thus†; Letters to Editor thus‡]*

Troop Movements:
Air Lines Ordered to Share Load, 875
Air Service Inaugurated for, 379
Atrocity Reports on Railroads' Handling, 91†; 173, 216 and 1061 (Senate Hearings on); 196†, 256, 927†
Cars Necessary to Remove Men from "Queen Elizabeth," 68
Demobilization Plans, 344, 452, 653, 659, 728, 760, 789, 868, 874, 947, 949, 998, 1032, 1061
Heavy Travel Still Confronts Railroads, 567, 789*, 868, 874, 998
Largest Concentrated Movement, 379
M. P. "Eagle" Makes Extra Run for Servicemen, 687
N. Y. N. H. & H. Movements at New High, 494
Number Handled by Railroads Since Pearl Harbor, 452, 645, 789*
Number Handled by Transportation Corps During War, 697
Number of Pullmans Assigned to, 793, 874
Number Shipped Overseas Since Pearl Harbor, 496
P. R. R. Traffic Since Pearl Harbor, 909
Pullmans for Veterans, 52†
Railroad and Highway Compared, 687*
Railroad Record in Handling, 256, 546†, 789* 1061
Railways Not To Blame for Poor Accommodations When No Advance Warning of Trip is Given, 927†
Redeployment Involves Six Rides Per Man, 68, 790
Redeployment Plans, 173, 174 (Col. J. M. Johnson on), 196†, 215, 216, 256, 789
Rotation Sleeping Plan for Trains, 173
Statistics on Railroad Handling of, 418, 792
Stranded Veterans' Plight Laid on Government's Doorstep, 1058
Strikes Cause Delay in Building Cars for, 779†, 875, 907, 949
Third Fleet Moved in 700 Pullmans, 689
Uniform Car Occupancy Standards, 173
Wounded Men, Peak Passed in Moving, 108
Trucks, Car:
Hanna Glide-Ride Air Cylinder for, 903*
Weight-Saving Opportunities, 1012†
Trucks for Diesel-Electric Switching Locomotives Standardization of, 153
Trucks, Industrial:
"Chore Boys" on P. R. R., 678*
Yale & Towne New Lift Trucks, 902*
Trusteeships as of June 30, 1945, 839
Tunnels:
Bozeman, in Operation on N. P., 224
D. & R. G. W. New Tunnel at Tennessee Pass, 760

U

Unified Services, President Truman on, 1043†
Union of Socialist Soviet Republics:
Rail Press, Large, Shipped to, 891*
Railroad-Mounted Unit Substations for, 867*
Union Pacific:
Ashby, G. F., to Succeed W. M. Jeffers as President, 1056*
Car Distribution in War-Time, 293*
Scholarships, Carl R. Gray, 25th Anniversary of, 450
Train Schedules Speeded Up, 997
Union Switch & Signal Company:
N. C. & St. L.; C. T. C. Installation, 647*
St. L.-S. F.; C. T. C. Installation, 485*
Wabash Manual Block-Remote Control Signal System, 133*
United Mine Workers of America: Efforts to Organize Railroad Employees, 377
United States Department of Agriculture:
Bureau of Agricultural Economics: Will Public Pay for Air Shipment of Perishables?, 877
Wood Preservation Statistics for 1944, 642*
United States Department of Commerce:
Bureau of Foreign and Domestic Commerce: Report on Domestic Transportation, 385, 730
Civil Aeronautics Administration: "Increased Support" Promised for, 534
United States Department of Justice:
Anti-Trust Suit Against the Railroads, 132, 208, 413‡, 529, 691, 692, 946
Anti-Trust Suits Filed Against General Electric and Westinghouse Electric, 619
Critical Appraisal of A. C. Wiprud's Book, 208, 413‡
Federal Bureau of Investigation: Dining Car Employees of Erie and N. Y. C. Arrested for Thefts, 377
Kilday, J. E., Succeeds A. C. Wiprud, 76
Pacific Coast Bus "Monopoly" Charged, 693
Pullman Anti-Trust Case, 370, 425, 721, 758, 831, 934, 993, 1026, 1059
United States Department of the Interior:
Missouri Valley Plans Prepared, 115
Solid Fuels Administration for War:
Coal Shortage is Still a Possibility, 420
Stockpiling of District 8 Coals Halted, 727
United States Department of the Navy:
Armor Plate Rates Cut and Reparations Awarded, 458; Rate Order Modified, 913
Freight Consolidating Activities Cut, 728
Freight Traffic Halted as War Ceases, 306
R. E. A. Cited for War Work, 995
United States Department of War:
Air Movement of Troops Inaugurated, 379
Air Priorities for Short Trips Banned, 110
Air Priorities to End Soon, 423
Armor Plate Rates Cut and Reparations Awarded, 458; Rate Order Modified, 913
Army and National Transportation Policy, 845†
Army Transportation Corps:
Accomplishments Reviewed on Third Birthday, 215
Annual Report for 1944-45, 697
Cargo Shipped Since Pearl Harbor, 496
Gross, Maj. Gen. C. P., to Leave, 694, 911
Highway Program Advocated by Brig. Gen. E. H. Lastayo, 1055
How Railroads Helped Save El Alamein, 206
Leavey, Maj. Gen. E. H., Named Chief, 911, 949*
McIntyre, Brig. Gen. A. F., Retirement of, 764*
Military Railway Service: (See also Railroad Operations in War Zones)
Battalions to be Inactivated After War, 306
Chapel at Brussels Dedicated, 307
Chaplains Serving in the, 586
Equipment Used in Europe, Amount of, 68, 220, 379, 865
French Award Given to Officers, 305*
German Locomotive Named for Gen. Gray, 339*
Gray, Carl R., Jr., a Major General, 448, 534; Back in U. S., 837
Iranian State Railway Operation Ceases, 67; 30 Months Operation of, 142*
Jobs for M. R. S. Officers, 254‡
Nazi Eagle Presented to French National Railway Society, 725*
Number of Troops in, 215, 329
One Day's Work in Europe, 328*
P. G. C. Camps Named for Deceased Transport Men, 258
P. G. C. Railroaders Honored, 529
Poem Dedicated to Soldier Killed in a Locomotive Cab, 909
Promotions in European Theatre, 111, 218*, 221, 416, 418, 492, 534
Proposal to Bring Some Troops Home to Work on the Railroads, 196†, 215, 218
707th Grand Division to be Deactivated, 908
708th Grand Division, Traffic Handled by, 104
710th Grand Division Operations, 329
713th Battalion Operations, 305
718th Battalion Operations, 329; Awarded Meritorious Service Unit Plaque, 416
722nd. Battalion has Youngest Engine Crew in E. T. O., 450
724th Battalion Commended for Giving Candy Bars to French Children, 308; Receives 32 Awards, 612
727th Battalion to be Deactivated, 908
732nd Battalion Commended, 216
746th Battalion Electrical Transmission Company Performs Remarkable Job in Germany, 417
755th Shop Battalion Awarded Meritorious Service Unit Plaque, 378; Joins in Belgian Celebration, 609; Medals Awarded to Four Members of, 910
756th Shop Battalion Completes Car Building Program, 833*
757th Shop Battalion Takes Over German Locomotive Works, 72, 339*, 516*
759th Battalion "Yankee Boomer" Car, 251*
762nd Shop Battalion Sets Up New Depot at Munich, 341
763rd Shop Battalion Holds Triple Ceremony on Second Anniversary, 417
765th Shop Battalion Moved to the Pacific, 217
Tonnage in European Theatre Increased, 68
Pacific War Ports' Traffic Revealed, 496
Peak Passed in Moving Wounded Men, 108
Promotions in European Theatre, 111
Railroad Equipment Operated by, 698
Railroad Equipment Purchased by, 215
Redeployment Operations at Oise, 216
Redeployment Statistics, 215
Should be Retained in Peacetime, 282†, 687
Traffic Control Division:
Freight Traffic Branch Personnel, 383
Reservation Bureau Operations, 793*
Visual Education for Freight Handlers, 713*
United States Department of War:—(*Continued*)
Army Transportation Corps:—(*Continued*)
Traffic Control Division:—(*Continued*)
Williamson, Brig. Gen. W. J., Retires, 574*, 725 (Joins Truck Lines)
Yount, Brig. Gen. P. F., Named Chief of, 698
Traffic Shipped During the War, 697
Transporting Locomotives from India to Burma, 296*, 530*
Troops Moved During the War, 697
Troops Sent Overseas Since Pearl Harbor, 496
Chinese Railway Expert Offers Aid to, 258*
Demobilization Plans, 344, 452, 728, 760, 789*, 874, 949
Demurrage Charges Held to a Minimum, 456
Effect of Strategic Bombing on German Industry, 719
Freight Consolidating Activities Cut, 728
Procurement Cut to Benefit Railroads, 308
Railway Equipment Declared Surplus by, 692
Redeployment Plans, 173, 174 (Col. J. M. Johnson on), 215, 216, 256, 789*
Rotation Sleeping Plan for Troop Trains, 173
Steps Taken to Help the Railroads in Redeployment of Troops, 38, 172, 173, 174 (Col. J. M. Johnson Criticizes), 215, 216
Supply Services Perform Big Job in China, 259*
Traffic Halted as War Ceases, 306, 344, 345
Use of Trucks in France Questioned by Senate Committee 68
Wharfage Allowance Granted by I. C. C., 348
Will War's Transport Lesson Be Heeded?, 282†
United States Railway Mission to Mexico: R. J. de Camp Named Chief of, 906
United States Supreme Court:
E. J. & E. Case Involving Authority of Collective Bargaining Agent, 660, 764
Georgia Equalization Rate Case, 310, 576, 1001, 1034
I. C. C. Asks Rehearing of Intrastate Fare Case, 114
I. C. C. "Discretion" Extends to Future, 763
M. P. Employer's Liability Case, 763
Railroad Cases to be Heard by, 692
Universities, Co-operative Relations with, A. R. E. A. Report on, 107‡, 527‡
University of Illinois: Brunner Memorial Established, 492

V

Valve, Automatic Discharge, for Elesco Steam Dryer System, 167*
Valve, Blower, T-Z Quick-Acting, 169*
Vapor Temperature Zone Control, 165
Veterans (See Employment of Veterans)
Viaducts (See Bridges)
Victory Gardens, Railroads' Contribution to, 198†
Victory Loan Trains, Railroad, 870
Virginian: M. G. Electric Locomotives Ordered, 840
Visual Education for Freight Handlers, 713*

W

Wabash:
Collision at Wabash, Ind.; I. C. C. Report, 76
Fined for Explosives Rules Violation, 576
Signaling, Manual Block-Remote Control, 133*
Wages (See Employees: Wages; also Salaries)
Walkway on Denison Lake Bridge; St. L.-S. F., 250*
Wall Street Journal:
Significance of Britain's Election, 214
Why Keep the Bomb Secret?, 765
War Effort of the Railroads:
Canadian Roads Praised by Party Leaders, 688
Capehart, Sen., Pays Tribute to, 692
Comparison with Highway Service, 687*
How Army's Cutbacks Will Affect Carriers, 344
How I. C. Handled War-Time Traffic, 636*
Johnson, Col. J. M., Reviews, 452, 680, 990
Kendall, W. C., on, 599
"Kirk" Orders for Moving Pacific Coast Traffic, Value of, 727, 847†
Men with Hoes, 198†
M. P. "Eagle" Makes Extra Run for Servicemen, 687
Oil Movement an Epic of War-time Transportation, 511†
Part Played in Saving El Alamein, 206
Praised on "This is Your F. B. I." Program, 494
Record in Handling Troop Movements, 256, 546†, 789*, 1061
Will War's Transport Lesson Be Heeded?, 282†
War Manpower Commission (See Office for Emergency Management)
War Production Board (See Office for Emergency Management)
War Shipping Administration (See Office for Emergency Management)
"War Time" Ended, 535, 724
"War Time," WPB No Longer Interested in, 383
Warehousing Practices at North Atlantic Ports, I. C. C. Drops Investigation of, 999

Washington, Idaho & Montana: Emergency Board Report on Labor Dispute, 186
Washington Post: Army Regard for Civilian Needs, 256
Water Carrier Service, Temporary Domestic, W. S. A. Authorized to Operate, 382, 419, 453, 497; Extension of Service Sought, 1035
Water Carriers:
Railroad Restrictions on Delivery of Cars to, 834, 904 (Correction)
Transportation Policy; L. F. Orr on, 373
Watercraft, Domestic, ODT and WSA Lift Control on Transfers of, 458
Waybill Study Proposed by I. C. C., 911
Welded Rail (See Rail)
Western Agreement: Charges Against Railroads Filed by U. S. Department of Justice, 132, 208, 413‡, 529, 691, 692, 946
Western Association of Railway Executives: Anti-Trust Suit Filed by Department Justice, 132, 208, 413‡, 529, 691, 692, 946
Western Maryland:
Car, Instruction, for Training Employees, 60*
Locomotive, Shay Geared, 549*
Western Pacific:
"California Zephyr" Ordered, 662
Reorganization Expenses, 918
Switching Allowances to Fruit Growers Supply Company not Allowed, 384
Western Railway Club: Wayne A. Johnston on a Formula for Railroad Prosperity, 644
Western Roads:
Employees May Still be Certified to Draft Boards, 382
Improvement Program for 1946, 724
Improvements Paying Off On, 92†
Need for Employees, 53†, 109, 172, 173, 196†, 215, 216, 219 (Manpower Month), 659
Western Roads:—(*Continued*)
Preparation for Record Traffic, 180
Traffic Increase in First Half of Year, 312
Trains Assigned to Military Use, 263
Trains Delayed by Manpower Shortage, 225
Western Union Telegraph Company:
F-M Carrier Telegraph on B. & O., 690
Radio Relay System to be Used by, 711
Westinghouse Air Brake Company: Composite Brake Equipment, 171*
Westinghouse Electric Corporation:
Anti-Trust Suit Filed Against, 619
G. E. Makes New Lamp Agreement with, 182
Motor-Alternator for Passenger Cars, 167*
Sturtevant, B. F., Company, Acquired by, 460
Wharfage Allowance Granted to Army by I. C. C., 348
Wheel, Driving; Device to Control Slippage, 164*
Wheeling & Lake Erie: Merger with C. & O. Planned, 339, 462, 664, 733
Wheels:
Mech. Div. Report on, 163
Wrought Steel Freight Car, New Ceiling Prices on, 660
Wm. Bros. Boiler & Mfg. Co.: Sno-Flyer Plow, 408*
Wilson General-Purpose Radiation Units, 167*
Window Curtain, Pratt, 900*
Window Washers, "En Route," Needed, 433†
Windows, Those Dirty, 433†
"Winning of the War in Europe and the Pacific," 845†
Wisconsin State Journal: C-A-I-C!, 132
Women in Transportation:
N. Y. C. Travel Representatives, 570*
Number on the Railroads, 228, 697
Women's Lounge Opened by C. & N. W., 572*
Wood Preservation:
Asidbar Treatment for Soft Wood, 902
Corrosion Tests at Kure Beach, N. C., 597*
Fire-Retardant Treatment Statistics, 643
Statistics for 1944, 642*
Woodlock, Thomas F., 358†
Wool Rate Investigation Reopened, 73, 268, 913
Worksaver Electric Trucks, 902*
Wrecking Cranes, New, on the P. R. R., 904*
Wrench, Rolling, for Hopper Car Gates, 900*

Y

Yale & Towne New Lift Trucks, 902*
Yard Maintenance, Roadmasters' Report on, 491
Yards:
B. & O. Orders Radio-Telephone Equipment for New Castle Yard, 377
C. N. R. Equips Yard with Radio-Telephone, 870*
C. B. & Q. at Lincoln, Neb., 92†, 100*
Dual-Frequency Communication Tested in Jacksonville Terminal 336*
Rail Reclamation Yard, 26*
Reading Tests Train Communication in, 948, 1050*
Superintendents' Report on Speeding Up Yard Operations, 523
Young Men's Christian Association:
B. & M. Self-Improvement Program, 98
N. Y. N. H. & H. Cedar Hill Building Dedicated, 41
Preservation of the American System, 8
Railroad Organization and Services, 65

Z

Zincgrip, Armco, 165*

BOOK REVIEWS

A. S. T. M. Standards on Cement, 66
A. S. T. M. Standards on Concrete and Concrete Aggregates, 609

Builders of the Bridge, The, 337

"First with the Most" Forrest, 374

International Transport and Communications Series, 609

Justice in Transportation, 208

Railroad Avenue, 904

The Train Book, 491

ELECTIONS AND APPOINTMENTS

[**Indicates photograph and sketch; ‡Indicates sketch only*]

A

Aamodt, Bert J., 915‡
Acker, Alexander H., 625
Adair, Lt. Vernon B., 143
Adams, B. T., 465
Adams, Churchie F., 273, 318‡
Adams, E. Eugene, 580‡
Adams, Harry R., 1039, 1068‡
Adams, Leonard M., 305
Adkins, V. R., 958
Agnew, Gordon G., Jr., 504
Ahearn, W. F., 626
Aiman, Barbutt W., 955
Albaugh, Capt. Oscar T., 612
Albritton, Ottis O., 239, 316*
Alexander, Charles E., 584
Alexander, Davey F., 272, 353*
Alexander, Maj. Richard L., 586
Alford, C. T., 83
Alfs, William A., 427
Alger, Fred W., 731
Allen, Clarence M., 1036
Allen, Gene, 704
Allen, J. D., 699
Allen, John D., 911
Allen, Robert G., 766*
Alley, R. C., 954*
Allison, J. P., 841*, 882‡
Allyson, Stanley, 984
Andersen, George R., 123, 239*
Anderson, A. G., 909
Anderson, E. W., 651
Anderson, J. Robert, 236*
Anderson, Sir John, 879
Anderson, John W., 699
Anderson, M. J., 1036
Andrews, C. G., 959
Andrews, Ethridge N., 612
Ankerson, Maj. H. T., 305
Annable, Lt. Col. L. F., 194
Anthony, James, 955
Appleton, Brig. Gen. John A., 730, 837
Archer, L. E., 625
Arledge, William H., 220
Armstrong, R. Wright, 701, 919*
Arrick, H. M., 351
Arter, Maj. John B., 571
Arthur, Robert B., 464
Ashby, George F., 1056*
Atkinson, P. F., 884
Atterberry, R. M., 272
Atto, H. L., 841
Atwood, H. E., 351
Austin, David F., 580
Austin, F. S., 18
Averill, Robert M., 835
Avery, F. J., 878
Aydelott, J. H., 38
Ayers, Frederick L., 959

B

Bachran, John, 599*
Backes, Edward H., 1066
Bacon, J. L., 542
Bailes, W. B., 1038
Bailes, William L., 238, 318‡
Bailey, E. H., 83, 193‡
Baily, N. M., 391, 393*
Baker, Collin F., 123
Baker, Lloyd W., 427, 506*, 667
Baker, Sterling, 122, 193*
Baker, W. C., 122
Baker, W. R., 626
Baldridge, Charles W., 476
Baldwin, Herbert L., Jr., 531, 612
Balk, Harold H., 921
Bandel, Frank C., 615
Barefoot, O. R., 428, 543*
Barham, Robert Y., 351
Barker, James M., 911
Barnard, George M., 999‡
Barnes, E. W., 50
Barnes, Capt. Richard A., 111
Barnes, S. I., 585
Barnett, M. B., 364
Barnetts, Michael, 144*
Barnhart, E. H., 675
Barr, R. E., 1069
Barrett, C. E., 884
Barrett, Pearce L., Sr., 542, 703*
Barta, John G., 1036
Bartels, Herbert G., 737
Bartz, Edgar W., 460
Baselt, W. H., 1060
Bass, Rudolf, 351
Batchelder, H. C., 1009
Bateman, J. W., 506
Bates, Lt. Col. Howard U., 833
Bates, W. O., Jr., 118
Batliner, A. J., 506, 736, 922
Battley, E. R., 945*, 1060
Bauer, Eugene C., 878
Baxter, Samuel W., 83
Beacham, Sidney W., 1069
Bean, Capt. J. L., 305
Bean, William K., 391, 393*
Beard, Capt. J. G., 305
Beatty, Albert R., 691*
Beaumont, J. C., 960
Beck, A. O., 884
Beck, C. H., 1060
Beck, D. H., 666*
Becker, Arthur F., 503
Becker, Maj. C. E., 383
Becker, Lt. George C., 380
Beeman, George W., 426
Beeuwkes, R., 987
Beirne, Andrew H., 961
Beitler, Samuel R., 264
Belding, Lewis A., 460
Belfield, William R., 464, 1068
Belitz, Peter P., 736, 922‡
Bell, John C., 731
Bender, W. A., 734
Benjamin, Percy E., 272
Benjamin, William A., 770
Benn, Harold W., 450
Bennett, Alonzo, 933
Bennett, Elmer L., 427‡
Bennett, R. G., Jr., 273
Bennington, J. R., 583
Benton, Richard F., 667
Benz, G. E., 883
Berg, L. D. T., 731
Berg, R. F., 768
Bergman, L. P., 84
Bernard, T. W., 50
Berry, Wesley B., 586, 704‡
Bersie, Hugh G., 79
Bertram, B. C., 379
Bethea, J. N., 1040
Betterton, G. M., 18
Betts, G. Russell, 351, 872
Beyer Otto S., 266
Bickler, C. J., 955
Bigelow, Jonas D., 503
Biggan, Lt. Patrick J., 418
Biggs, John D., 984*
Bilger, W. E., 464
Billingsley, Ernest L., 921, 1069*
Bingham, Col. Sidney H., 305, 723
Birch, W. A., 961
Birge, R. D., 460
Bishop, D. B., 667
Bishop, E. M., 882
Bitner, M. C., 508
Black, R. L., 428
Black, William E., 354
Blacklidge, C. W., 84
Blackmore, William M., 119*, 731
Blackwell, J. C., 239
Blair, George A., 933
Blake, Arthur W., 318
Blauel, A., 585
Bledsoe, O., 542
Blood, Brig. W. E. R., 350
Bloom, N. D., 626
Blosser, Raymond T., 923
Bluhm, M. L., 958
Bobbitt, Wesley C., 580
Bober, H., 543
Bohling, Wilfred C., 350
Bohlsen, P. G., 1069
Boivin, Omer A., 427, 508*
Boland, J. E., 961
Boller, Harry, 428
Bolmgren, E. W., 84
Bone, Sidney W., 667
Boone, George T., 123
Boring, Emory P., Jr., 35
Boulden, Dorothy, 570*
Bourscheidt, Julius W., 122, 272‡
Bowen, H. B., 146*, 691*

ELECTIONS AND APPOINTMENTS—Continued

*[*Indicates photograph and sketch; ‡Indicates sketch only]*

Bowman, Lt. Mark, 418
Bowser, John V., 451
Boyd, Lt. Col. R. M., 383
Boyd, T. A., 11
Boyer, J. C., 770
Boyle, Robert E., Jr., 193, 465
Boyle, Thomas E., 584, 735*
Bradfield, George K., Jr., 878
Bradford, R. K., 73
Bradley, Jack, 955
Bradley, Mark H., 959
Brady, Ralph R., 350
Bragg, Kendrick R., 506
Branch, Lt. Col. George R., 258*
Brandenburg, Jim E., 71
Brearton, Gerald C., 612
Brennan, J. R., 272
Brennan, J. W., 909
Brennan, Lt. Col. Thomas J., 216
Breternitz, Maj. Charles E., 492, 530
Brewer, I. C., 84
Breyer, J. S., 427, 465
Bringleson, A. C., 883
Brinley, C. E., 1060
Brittin, Col. L. H., 906
Brooks, Barlow, 315‡
Brooks, John, 144
Brooks, Stephen A., 954
Brooks, W. D., 503
Brown, A. R., 317
Brown, Arnold G., 537*
Brown, B. M., 146*
Brown, C. E., Jr., 233
Brown, Carroll, 456
Brown, E. E., 1038
Brown, E. J., 476
Brown, F. W., 583
Brown, G. L., 354
Brown, H. F., 987
Brown, Holmes M., 504
Brown, J. Calvin, 264
Brown, R. S., 273
Browne, K. A., 1060
Browne, Walter H., 625
Browning, A. C., 145*
Browning, Alan, 542, 703*
Bruce, Col. Aubrey M., 258*
Brunner, George, 841, 883*
Bryan, A. F., 770
Bryan, J. M., 506
Buchanan, Hugh H., 234
Buchanan, Thomas C., 1068
Buckley, James R., 238
Budd, J. M., 735, 769‡
Budd, Ralph, 674, 948
Budwell, Leigh, 923, 961*
Buford, R. G., 507
Bugg, Col. Benjamin L., 122‡
Buland, George L., 881
Bullock, E. H., 626
Burger, J. H., 586
Burgott, L. J., 960
Buring, Lt. Harold J., 221
Burley, Paul B., 227, 651, 744
Burnett, William E., 770, 883*
Burpee, Brig. Gen. Clarence L., 305, 339
Burt, Roland W., 349
Burtis, George H., 909
Burtness, T. W., 958
Busch, F. W., 1036
Bush, Capt. W. K., 1038
Butchard, Percy, 1036
Butler, Edward T., Jr., 702
Button, A. P., 238*
Buzan, Elmer F., 959
Byas, R. J., 84

C

Cain, B. S., 1059
Cain, James A., 879
Caldwell, Met J., 1010
Callahan, C. B., 583, 959
Callahan, William E., 41, 317*
Callis, Aubrey M., 460
Cameron, Hugh J., 503
Camp, Elena J., 624
Campbell, Col. Alexander W., 379
Campbell, E. D., 1060
Campbell, F. G., 476, 675
Campbell, J. E., 507
Campbell, J. F., 119
Campbell, J. Hugh, 50, 85*, 1070
Campbell, Owen W., 317, 395*
Campbell, Roy W., 933
Campbell, William B., 663*
Cannon, John, 47
Cantley, W. I., 145*, 1031*, 1060
Canton, Steve, 586
Cantwell, Russell, 835
Carr, Maj. H. J., 383
Carr, James R., 665, 735*
Carr, Col. William S., 216, 305, 340*
Carroll, J. E., 50
Carroll, O. T., 771
Carson, Howard C., 667
Carter, Anne G., 353
Carter, E. Finley, 1036
Carter, J. E., 627, 667
Carter, J. H., 122
Carther, S., 1040
Cashen, Thomas C., 723, 728
Casler, C. A., 463, 583‡
Cassel, Byron C., 391, 392*
Caudle, R. E., 675
Cavins, Kenneth, 503
Chafee, John S., 108
Chambers, C. P., 584
Chance, C. S., 50
Chancellor, Charles D., 506, 625*
Chapman, A. B., 675
Chapman, Frank J., 542
Charles, John L., 50, 239‡
Charlton, Albert H., 879
Cheng, Dr. Hwa, 258*
Cherry, C. E., 354
Chessman, Grant E., 451
Chew, M. G., 237
Chidley, W. H., 884
Chinn, Armstrong, 623, 664*
Chinn, K. P., 768, 884‡
Chittenden, Edward A., 920, 958*
Christiansen, L. A., 38
Christoffer, C. S., 413
Christoph, J. H., 236
Chunn, W., 923
Church, Albert L., 236‡
Cisna, B. E., 464
Clancy, E. A., 451
Clapp, William F., 597
Clare, Richard H., 499
Clark, A. C., 123
Clark, J. J., 318
Clark, J. N., 272
Clark, James F., 612
Clark, Kenneth L., 955
Clark, L. D., 612
Clarke, A. C., 122
Clarke, Fred E., Jr., 882
Clarke, Herbert R., 104, 476
Clarke, N. J., 270, 350*
Clary, Joseph F., 662, 699*
Clay, Cassius M., 492‡, 505
Claypool, Frank D., 298*, 530*
Cleeland, Robert, 767
Clement, Martin W., 728
Clement, Sheldon B., 84
Cline, Frank C., 460
Clinkinbeard, Walter R., 123
Cloud, John W., 507, 666
Clough, B. L., 272
Cloyd, Marshall D., 235, 352‡
Ciune, M. F., 465
Clynch, A. J., 768
Cobb, H. Manley, 1068
Coblentz, Joseph A., 233
Cochrane, A. J., 1066
Cockrill, John W., 239
Coffey, G. B., 872
Coffman, Alvin, 259*
Cole, Percy T., 1070
Cole, R. V., 316, 463*
Cole, Thomas O., 47
Coleman, David T., 663
Coleman, H. T., 1070
Coleman, W. P., 703
Colfer, Thomas R., 584
Colley, John H., 667
Collins, D. J., 770
Collins, Mac G., 737*
Collins, W. L., 1006
Collins, Walton R., 1036
Colstadt, C. V., 427
Colvin, Charles M., 351
Colvin, F. L., 842
Combs, B. J., 318
Comeau, L. A., 84
Conder, Frank M., 235, 353‡
Conley, A. W., 122
Connell, E. D., 954
Connors, E. J., 426
Conrad, F. J., 1069
Conway, B. F., 506
Cook, Bernard, 428
Cook, Lt. Col. Frank G., 530
Cook, Howard, 1069
Cook, Jack C., 922
Cook, William M., 842, 922‡
Cooke, Alton H., 540‡
Cooke, H. G., 960
Coon, D. J., 194
Cooper, T. Harold, 49, 83*
Cooper, William L., 234
Copper, R. E., 771
Corbett, Maj. McElvey L., 585
Corbett, Vincent T., 38
Corbett, William J., 911
Cordes, Wilmer H., 579
Corlett, F. K., 960
Cornell, Roland, 960
Cornwell, J. J., 122
Correll, Charles C., 1069
Corwin, T. M., 920‡
Corwith, H. P., 711*
Cotterell, E. D., 932, 1068
Cottom, Edward J., 667, 736*
Cotton, Harry E., 955
Coulter, Frank L., 884, 1040*
Courtney, Robert C., 959
Covin, Col. L. E., 305
Cowan, J. L., 768‡
Cowie, Charles D., 49, 83*
Cox, Clyde C., 1069
Crabbe, F. F., 1069
Crabbe, Stanley W., 920, 959*
Crabbs, William J., 842, 923*
Crago, Paul H., 503
Craig, Irvin M., 463, 702*
Craig, M. B., 122
Craig, Mark L., 842
Craig, R. A., 883
Crane, Clay, 460
Craton, T. H., 538
Crawford, George S., 460
Cree, Albert A., 918, 1067
Crenshaw, B. W., 538
Crew, Roland H., 704
Crill, Col. Otto D., 329, 417, 610
Croisant, C. E., 872
Cronk, Edward P., 882
Crosbie, W. A., 1038
Crosland, Col. B. H., 305
Cross, Harold R., 298*, 530*
Crossley, V. J., 665, 667
Croswell, Capt. J. W., 383
Crout, W. N., 351
Crowley, E. E., 476
Crowley, Leo T., 911, 958, 979*
Crueger, Walter F., 463, 624*
Crump, N. R., 1068
Crumpler, B. E., 960
Cudworth, W. O., 932
Cummings, Walter J., 911
Cunningham, J. M., 84
Curda, George J., 703
Curran, W. A., 920
Curry, D. F., 583
Curtis, John A., 351
Curtis, L. G., 84‡
Curtis, R. F., 537
Cutler, John B., 503
Cyler, John W., 503

D

Dahl, Ernest A., 304, 559*
Dallas, George M., 118*
Daly, John J., 961
Damerel, William A., 955
Dames, George F., 665
Danneberg, P. J., 273
Darby, J. Douglas, 580
Darden, C. M., 1060
Darden, Robert D., 736
Darnall, V. M., 769
Darr, Frank B. J., Jr., 923
Darrah, M. L., 1038
Davenport, J. E., 1060
Davidson, W. J., 537
Davis, Lt. Albin P., 70
Davis, C. McD., 541, 583
Davis, E. W., 665
Davis, Ira F., 394, 395, 505*
Davis, J., 542
Davis, Joseph W. S., 537
Davis, R. E., 1068
Davis, Roland A., 1069
Davis, W. E., 744
Dawes, Col. Charles C., 272
Dawson, V. N., 18
Day, D. S., 507
Day, R. D., 395
Dean, Eugene J., 919*
Deane, Horace A., 1036
Dearmont, Russell L., 1000
DeBord, George E., 298*, 530*
de Camp, R. J., 906
Deck, L. L., 702
Decker, Col. Benjamin H., 111, 305
Degelow, Walter G., 1009, 1040‡
Deines, F. E., 1069
Dekle, S. D., 668
Delaney, William E., 84
DeLaughder, Noll C., 612
Dennis, Lt. Col. H. G., 305
Densmore, R. S., 1009
Denton, H. L., 122
Deramus, William N., 463
Derr, Amnon L., 381, 919‡
Dever, Harry C., 732
deVilliers, E. B., 1038, 1068*
Diamond, Col. Oscar R., 111
Dickerman, W. C., 1060
Dickerson, R. F., 272
Dickson, John D., 1068
Dickson, Robert F., 770, 883*
Dill, John A., 83
Dillen, J. N., 624
Dinic, Carl J., 731, 766*
Dise, H. A., 202
Diven, Arthur C., 736
Dixon, Jarman E., 273
Dobbs, S. A., 701
Dobson, John A., 238
Dodge, Harold W., 839
Dodson, C. R., 959, 1039
Doggett, A. L., 84, 122
Doggrell, J. H., 624
Doherty, William G., 665, 769*
Dohring, F. W., 579
Donovan, A. G., Jr., 840, 881‡
Donovan, Edward F., 624
Donovan, J. P., 960
Dooley, B. C., 238
Doolittle, Leonard C., 538
Dorenbusch, A. F., 1028
Dorety, F. G., 541*
Dornfeld, P. W., 50
Dorsey, T. F., 579*
Dougan, James N., 583‡
Dougherty, Edward A., 882, 884, 922‡
Dougherty, M. V., 882
Douglas, G. M., 506
Dove, George E., 770
Dowd, Benjamin S., 1066
Downes, H. J., 504
Drummond, David, 506
Dryden, G. H., 122
DuBose, S. H., 465
Ducsik, Joseph, 955
Dudley, E. M., 770, 841*
Duff, Oliver W., 665, 769‡
Dugan, R. J., 194
Dulaney, Edward H., 193
Dumas, George H., 1069‡
Dunbar, Eric L., 584, 735‡
Duncan, Francis D., 961
Dunkle, Henry O., 585
Dunlap, H. P., 83
Dunn, Robert J., 771
Dunton, O. M., 79
Durham, G. E., 505
Durham, George, 505
Dutruch, R. C., 625
Dwinnel, Thomas L., 298*
Dyer, C. E., 1040
Dyer, W. G., 1040

E

Eagleton, Earl, 465
Earley, T. K., 1069
Early, J. B., 237
Eastland, George W., 50
Eaton, A. S., 882
Eberhardt, Paul W., 1005
Echelle, Paul F., 960, 1039*
Eckart, Clark A., 768
Eddy, Clarence G., 615
Edey, W. B., 427
Edmonds, J. H., 580
Edwards, Andrew L., 142*, 144*
Edwards, F. E., 84
Edwards, Joseph W., 238
Edwards, M. J., 427
Egan, Alfred B., 915
Eggert, G. W., 921
Eggerton, A. S., 1068
Eichengreen, William H., 350
Eiselstein, Fred W., 233
Eklund, E. G., 50
Elder, Charles C., 427
Elkins, James A., 880, 1037
Ellerman, Richard W., 354
Ellington, J. C., 123
Elliott, George B., 541, 583
Elliott, R. B., 123
Elliott, W. A., 579
Ellis, C. O., 559
Ellis, Laurie, 920
Elmes, Col. William T., 309
Elste, G. W., 122
Emery, John C., 841*
Enborg, A. L., 665
Engel, G. Curtis, 503
England, G. A., 538*
England, James R., 703
Engle, T. J., 123
English, John A., Jr., 1066
Ennis, Dr. Joseph B., 970*, 1060
Enochs, H. A., 723
Erickson, Leif, 44
Erlenbach, William E., 238
Erskine, Ralph, 119
Erwin, R. O., 427
Esdaile, Hector, 272
Evans, D. J., 771
Evans, Edward S., Jr., 538*
Evans, Thomas H., 667, 712, 771*
Everett, D. J., 273, 465, 627
Everstine, A. Perry, 426
Ewers, R. D., 463, 583*

F

Faerber, A. H., 627
Fair, William W., 921, 1009*

Fairbairn, J. M. R., 946
Fairchild, E. P., 1040
Falck, Frederick McQ., 391, 392*
Falvey, Wallace J., 33*
Fanning, J. E., 476
Farley, Joseph, 767
Farmer, C. F., 960, 1039*
Farmer, R. E., 84
Farr, Walter V., 78
Farrell, W. J., 17*
Farrington, J. D., 559*
Faupel, C. H., 921
Fawcett, Dwight A., 464, 507*
Fear, L. G., 1006
Fee, H. E., 585
Fehren, R. B., 731
Feldbush, Harry A., 234
Fence, Benjamin F., 624‡
Ferner, Daniel E., 665
Ferris, Dr. Francis S., 391
Fertig, C. C., 735
Fiddes, Lt. C. W., 383
Field, R. G., 465
Fields, Delbert, 884
Filkins, Arthur J., 580
Finch, Capt. W. G. H., 460
Finegan, Eugene B., 958, 1007*
Finegan, J. J., 235, 272‡
Fink, C. A., 542
Finn, Joseph H., 1066
Finn, Joseph J., 1066
Finnegan, Lt. Col. Edward J., 41(
Finnemore, H. F., 870
Fish, John H., 83
Fisher, Joseph A., 391*
Fisher, William C., 958, 1068*
Fitzsimmons, H. H., 194
Flaig, J. V., 884
Flanagan, W. E. A., 909
Fleck, W. C., 667
Fleck, Capt. William C., 612
Fleischer, Robert D., 503
Fletcher, F. E., 882
Fletcher, R. V., 33*
Flicker, Jack, 144*
Flickinger, T. W., 194
Floan, A. E., 835
Florance, A. D., 770
Flowers, Clyde E., 354, 427‡
Flynn, W. H., 146*
Foellger, Anton W., 667
Foley, Charles, 1036
Foley, William F., 1009
Foote, Maurice, 350
Ford, E. R., 42
Ford, J. R., 451
Forman, George S., 767
Foster, Arthur L., 834*
Foster, C. G., 273
Foulks, Lt. Col. Ernest E., 305, 309, 735, 769‡
Fowler, M. H., 960, 1039*
Fox, J. M., 508
Fox, Raymond M., 78, 188*
Fox, William F., 724*
Fraine, J. N., 920
Frame, Charles H., 627
Francis, Harry M., 460
Franks, L. R., 760
Franson, Kenneth E., 416
Fraser, Donald V., 540, 701, 712*, 881
Fraser, H. W., 723
Fraser, O. B. J., 655
Frawley, J. J., 882
Frick, Frederick H., 391, 394*
Friel, Henry C., K. C., 317*
Frier, Harry W., 737, 839
Froelich, William J., 911
Frye, Paul H., 234
Fuchs, Jacob D., 584
Fuller, Charles L., 428, 506*
Fuller, Thomas, 1009
Fulp, C. C., 84
Fyfe, R. C., 1069
Fynn, Alfred, 507, 584*

G

Gagg, Rudolph F., 264
Gallagher, John B., 911
Gallion, W. E., 50
Galloway, A. K., 122, 146*
Galvan, Dan M., 460
Galvin, Edward F., 878
Gambrell, E. Smythe, 835
Gamper, Hugo V., 318, 354*
Gangewere, E. P., 1060
Gantz, George, Jr., 298*
Garber, O. A., 146*
Gardner, G. W., 364
Gardner, J. E., 987
Gardner, James E., 770, 922
Gardner, Robert H., 233*
Garnett, Robert S., 1008
Garrigan, E. J., 233
Garrison, Lloyd K., 1034
Garstang, William W., 233
Garvin, Joseph F., 193*, 701
Gary, Hunter L., 701
Gass, Arthur H., 41, 317*
Gauthier, J. E., 427
Gautwick, C. M., 1039
Gaver, Raymond H., 503
Geddes, Joseph H., 612
Gegenheimer, L. H., 503
Gehan, Frank J., 920
Gelhorn, Comm. George, 955
Geraci, Frank, 579*
Gerdes, H. J., 463
Gibb, Hugh R., 760
Gibbs, Newton, 841, 921*
Gibbon, John M., 50, 85*
Gibson, Capt. Floyd D., 417
Giessow, Carl, 680
Gilbert, J. P., 585
Gilchrist, C. T., 503
Gill, H. P., 583
Gillick, James T., 911, 958, 1007*
Gillie, Fred M., 1066
Gillings, George, 353*
Gilman, V. B., 921
Gilmore, L. J., 749
Gilpin, Thomas, 667
Gimson, William H., 586, 668‡
Ginger, Cecil, 612
Ginter, Howard, 584, 624*
Giralt, Jose M., 416
Gish, Vernon L., 122, 236‡
Gleave, John, 506
Glenn, Robert L., 67‡
Glidden, Erwin R., 583, 665‡
Glover, G. R., 1069
Glueck, Isador, 839
Godron, W. G. G., 1066
Godsey, Capt. Carl C., 910
Godwin, Fred E., 428
Goebel, E. S., 233
Goebel, F. J., 122
Goff, C. J., 723
Gogerty, J., 146*
Gogerty, James E., 771
Goldschmidt, E. K., 732
Gonnell, B. C., 1010
Goodfellow, T. M., 508
Gooding, Matthew S., 583, 702*
Goodwin, J. E., 145, 146*
Goodwyn, Philo H., 667
Goodyear, Clare J., 680, 691*
Googe, P. H., 624
Gorby, John S., 1070*
Gordon, Howard L., 272
Gordon, K. H., 987
Gordon, V. A., 958
Gordon, William D., 272
Gracey, Thomas J., 122, 193, 237*
Graf, J. J., 368
Graf, John C., 503
Graham, James M., 585
Graham, John, 537
Graham, Reuben H., 427, 543*
Graham, Robert B., 427
Gramm, T. W., 955
Grant, Duncan C., 49*
Gray, Maj. Gen. Carl R., Jr., 305*, 340*, 448, 476, 534, 725*, 837
Gray, H. W., 507
Greco, Alfred E., 461*
Green, C. J., 426
Green, George L., 915
Green, Joshua, 911
Greenawalt, W. P., 79
Greene, Charles F., 580
Greene, J. Charlton, 543
Greer, H. E., 735
Gress, Leslie K., 704, 737*
Greutter, J. E., 922
Griffin, George H., 427
Griffin, T. G., 665
Griffin, W. C., 586
Grigg, Richard W., 1068
Griswold, William W., 318, 354‡
Gross, Maj. Gen. Charles P., 694, 911
Gruber, Victor I., 693
Gruenberg, Maj. Otto C., 586
Gunn, F. M., 118
Gunther, E. C., 872
Gurley, Fred G., 996
Guy, Henry L., 350, 537‡

H

Haberkorn, F. D., 503
Hackett, W. W., 542
Hagman, Reuben J., 768, 881*
Haines, F. E., 104, 959
Hair, D. S., 354
Hale, Leonard H., 194, 237*, 427
Hall, Alfred F., 958*
Hall, W. S., 83
Hallberg, E. C., 585
Halleck, Kenneth D., 767
Halpin, T. E., 586, 668 (correction)
Halverson, Cornell, 476
Halstead, William S., 351
Hambly, Ross O., 770
Hamilton, William H., 540, 624
Hamley, Frederick G., 984
Hammack, Henry L., 956
Hancock, J. S., 675
Hand, W. E., 463
Hanes, H. W., 1068
Hank, J. B., 580
Hank, J. J., 580
Hanna, Thomas C., 586
Hannon, Richard, 767
Hansen, C. R., 989
Hansen, Christ T., 270
Hanson, Herbert L., 236
Hanson, Roy O., 238
Harbeke, C. J., 50‡
Hardie, William V., 1064
Hardin, Joseph, 1010
Harding, Orman W., 841
Hardy, George F., 585*
Hardy, R. B., 665, 735
Hare, Jay V., 702, 734‡
Hargrave, Maj. Everett W., 309, 1039
Harlan, M. E., 38, 50, 499
Harley, James W., 909
Harlow, Lewis A., 460
Harmison, J. B., 1040
Harriman, E. Roland, 33*
Harrington, Victor S., 460
Harris, A. W., 665
Harris, G. H., 236*
Harris, S. C., 542
Harrison, George M., 728
Harrison, Ray F., 702
Harrison, W. R., 273
Harrow, Clifford V., 464, 507, 625*
Hart, B. P., 703
Hart, D. T., 427, 541*
Hartman, A. J., 961
Hartnett, W. H., 1040
Hartzler, Maj. Albert D., 760
Hartzog, Maj. W. L., 305
Harveson, C. B., 122, 123
Haskins, W. T., 123
Hatfield, Robert M., 839
Haverly, William W., 736
Hawthorne, V. R., 145*
Hay, Harold E., 272
Haydon, J. D., 464
Hayes, W. J., 1039
Haynes, J. P., 1028
Hayward, J. E., 583
Hayward, R. E., 1069
Head, C. C., 960
Heavers, John P., 428, 542*
Hedeman, W. R., 122
Hefron, E. L., 383
Hegeman, F. Theodore, 503
Heim, Gilbert H., 75
Heimbaugh, Maj. H. H., 383
Heindel, W. C., 767
Helander, Linn, 264
Helm, L. N., 464
Hendrick, Lt. Col. H. R., 383
Henley, R. G., 145*
Hennessey, J. F., Jr., 701, 734*
Henricson, G. O., 49
Herhusky, F. J., 1039
Herr, Kincaid, 318
Herrington, R. E., 123
Hess, Dr. Wendell F., 655
Hess, William, 142*
Hewes, John Jr., 122
Hewing, H. L., 884
Hewitt, John W., 391*, 392‡
Heywood, J. Louis, 75
Hickey, S. W., 872
Hicks, Elgin, 318
Higginbottom, W. C., 82, 227*
Higgins, S. C., 1028
Hill, C. E., 428
Hill, C. M., 427
Hill, Cedric S., 584, 665*
Hill, H. O., 655
Hill, Harvey T., 1036
Hill, Lt. Col. Howard G., 835
Hilliard, Thomas J., 580
Hillpot, R. L., 766*
Hiner, Gordon L., 47
Hirshman, T. L., 770, 922*
Hitch, C. B., 146*
Hobson, Roy C., 915
Hochbaum, Adolph G., 351‡
Hodson, James W., 920
Hoffman, L. A., 922
Hoffman, Otto H., 238
Hogan, Alfred H., 122, 193‡
Hollar, Philip A., 1066
Hollopeter, H. A., 1028
Holloway, H. H., 505
Holmes, Lt. James R., 307
Holton, Dr. Cornelius F., 465
Hood, J. M., 420
Hood, Lt. Robert C., 1066
Hook, Charles R., 580
Hooks, Thomas, 1039
Hooper, E. G., 760
Hord, Stephen Y., 351, 390
Horner, Col. Frederick C., 622
Horning, L. W., 599*
Horsman, Kenneth W., 350
Horstmann, F. B., 698‡
Horton, A. J., 959
Horton, Richard K., 736, 842*
Hosmer, Carey, 768, 880*
Hosp, S. S., 770, 841*
Hostler, Ernest E., 933
Hotchkiss, Ernest W., 236, 272
Howard, Earl S., 78, 118
Howard, George A., 85‡
Howard, Neal D., 675
Howell, Guyton G., 123
Howell, Wayne R., 881, 1038*
Hoyle, Royce A., 542, 702*
Hubbard, M. J., 49
Hubert, Frank, Jr., 698
Huckaba, H. A., 586
Huckstep, W. A, 675
Hudwalker, Harry A., 768, 769
Huffman, Hallan, 768, 920*
Huggins, W. L., Jr., 625
Hughes, J. M., 571
Hughes, John L., 768
Hull, Maj. Elmer B., 383, 465
Hullinger, O. M., 503
Hulse, Mack, 238
Humphreys, Floyd H., 543
Hungerford, Louis S., 1036‡
Hunley, J. B., 50‡
Hunt, A. L., 665
Hunt, Adlai S., 122, 194, 238*
Hunt, Charles A., 768, 920*
Hunter, J. B., 50
Hunter, W. E., 85
Huntley, Harry L., 79‡
Hurley, S. J., 84
Hurst, William C., 1008
Huston, F. P., 1060
Huston, H. H., 909
Hutchins, G. Howard, 460
Hutchins, John S., 537*
Huth, George A., 272, 353‡
Hutson, Capt. Herschel O., 571
Hutton, Edward R., 667
Huxhold, W. C., 395, 542
Hyde, Neil D., 236*, 238, 882

I

Ichter, John H., 270
Imgrund, G. W., 1038
Irvine, B. S., 83
Irvine, J. A., 932
Irvine, James, Jr., 391
Ivey, C. W., 1039
Ivie, Virgil T., 272

J

Jackson, H. W., 1006
Jaeschke, C. J., 354
Jakes, J. A., 84
Jakubowski, Stanley T., 142*
James, J. L., 318
Jamison, Col. Louis G., 305, 341, 571
Janes, A. L., 541‡
Jardine, William, 1069
Jarrett, Henry W., 668
Jarvis, Lt. Col. George M., 111, 70
Jarvis, J. W., 450
Jeffers, William M., 1056*
Jefferson, T., Jr., 238, 354
Jeffrey, F. H., 958
Jellinghaus, C. L., 33*
Jenkins, F. R., 665
Jenkins, Frank L., 946*
Jenkins, W. E., 463
Jennette, T. J., 388
Jennings, A. S., 882
Jensen, Col. Clarence G., 1064
Jensen, Frank, 842, 921, 959*
Jernigan, C. W., 50
Jerome, Frank J., 884, 923*
Jewell, Arthur N., 920
John, Russell D., 350
Johnson, Ernest E., 461‡
Johnson, Frank A., 586
Johnson, George T., 315‡
Johnson, Maj. H. H., 383
Johnson, H. W., 1066
Johnson, J. Gordon, 958
Johnson, Col. J. Monroe, 33*, 869, 990
Johnson, Col. John P., 623, 665, 666‡
Johnson, Lawrence P., 869
Johnson, Lt. Lee R., 111
Johnson, Logan T., 351
Johnson, P. J., 586, 668
Johnson, R. B., 960
Johnson, R. P., 1060
Johnson, S., Jr., 1006
Johnson, Searcy H., 427, 542*
Johnston, C. E., 675
Johnston, F. M., 920
Johnston, Brig. Gen. Paul W., 426, 540*, 570, 687
Johnston, W. S., 883
Jonah, F. G., 251
Jones, C. M., 884
Jones, E. Chandler, 542, 703
Jones, Freeman W., 770, 842‡
Jones, Maj. G. E., 34*
Jones, G. R., 841
Jones, H. W., 145*
Jones, Howard, 395
Jones, N. H., 272
Jones, R. B., 1040
Jones, R. C., 770

ELECTIONS AND APPOINTMENTS—Continued

[*Indicates photograph and sketch; ‡Indicates sketch only]

Jones, R. Parke, 42
Jones, S. C., 735
Jones, S. E., 395, 541‡
Jones, W. H., 427
Jones, W. R., 354
Jordan, Lt. Col. Channing M., 529
Josewitch, Capt. John, 111

K

Kaho, H. F., 624
Kalloch, H. H., 84
Kann, A. G., 145, 146*, 239*
Kaser, E. E., 49
Kaser, Howard, 49
Kates, Edgar J., 264
Kaufman, Jack, 460, 663
Kearney, L. E., 123
Keene, E. F., 921
Keiley, E. W., 507, 922
Keller, A. B., 911
Kelley, J. P., 238
Kelley, Joseph J., 41, 194, 318‡
Kelley, William D., 464
Kells, Charles F., 580
Kelly, E. B., 585
Kelly, H. H., 456
Kelly, L. J., 1069
Kelly, William T., Jr., 503
Kempster, Col. Oliver W., 111, 305
Kendall, Prescott J., 236, 317*
Kendall, Warren C., 691*
Kennedy, Harold L., 79‡
Kennedy, R. E., 428
Kerr, Charles B., 428
Kerr, Eugene J., 238
Kerstetter, H. J., 508
Kevers, Norman R., 234
Key, J. K., 383
Kidwell, G. A., 884
Kiefer, P. W., 1059, 1060
Kiernan, J. P., 420, 726
Kilday, James E., 76‡
Kilgour, Robert N., 309
Kimball, B. B., 427
Kimball, F. E., 85
Kimbel, G. R., 1069
Kimbel, Kay, 1037
King, A. Rice, 882
King, Edward L., 426‡
King, Col. Fay L., 308
King, Homer C., 726, 727, 729
King, James T., 612
King, John S., 537*
King, L. L., 18, 354
Kinsley, E. W., 599*
Kinsman, Roy L., 768
Kirby, H. E., 476
Kirchhof, Julius, 579
Kirk, W. F., 378, 726, 735, 847
Kirkhuff, L. C., 273
Kirkpatrick, Darrow, 354
Kistner, G. W., 961
Kittle, C. N., 627
Klauenberg, T. J., 1009
Klee, G. W., 316
Klein, Randall D., 542
Kleine, A. L., 83
Kline, Allen L., 123
Kline, W. E., 920
Klitz, F. M., 585
Knab, C. D., 84
Knecht, Herman D., 341, 354
Knight, J. S., 123
Knight, William H., 1036
Knotts, W. B., 704
Knowles, A. M., 202
Knowles, C. R., 675
Kolar, George J., 612
Koontz, Raymond, 915
Koukal, Henry J., 50
Krampf, L. P., 13*, 17
Krom, G. W., 507
Kromphardt, W. P., 959
Kronauer, F. C., 123
Kropf, Richard B., 915
Krumech, J. P., 909
Kuhn, S. T., 884
Kukull, Donald, 142*
Kuykendall, E. C., 883
Kyle, John M., 251*

L

LaBundy, A. F., 272
LaChance, Elise, 675
Lacey, Edward F., 933
Lacy, Phineas B., 958, 1008‡
Lacy, W. P., 507
Lafferty, Chester D., 318, 427‡
Laidlaw, Neil S., 420
Laird, R. P., 354
Lakoski, Walter, 84
Lally, Lt. Kenneth J., 612
Lally, Maj. L. D., 383
Lamb, Arthur, Jr., 612
Lamberton, Richard H., 382
Lamneck, E. J., 17*
Lamprecht, W. D., 583, 586
Landis, J. Noble, 264
Landlin, D. M., 123
Landreth, J. N., 83, 427
Landreth, R. N., 622
Lane, Warren S., 615
Lang, Maj. C. E., 585
Lanhan, Edward C., 541
Lantz, Ferdinand G., 585, 736*
LaPointe, Hector L., 123‡
Lapp, John A., 118
LaQue, F. L., 597
Large, Henry W., 883, 921‡
Larkin, J. K., 584
Larrabee, G. D., 428
Larsen, Carl A., 354, 464*
Larson, W. H., 1010
Lasher, Col. E. C. R., 70
Latham, H. S., 958, 1008*
Laubenfels, Baron, 104
Lauby, H. L., 909
Lauderdale, J. H., 18
Launius, James J., 298*
Lautenberger, C. F., 960
Lavelle, E. P., 49
Lavery, E. A., 585
Lawall, Dr. Charles E., 395
Lawler, G. M., 961
Lawrence, H. A., 960
Lawson, J. Warren, 391, 392*
Lea, Clarence F., 115
Leake, Arthur C., 428, 464*
Leaman, A. A., 667
Leavey, Maj. Gen. Edmond H., 911, 949*
Lebenbaum, Paul, 987
Lebowitch, Joseph, 259*
Lee, F. P., 704
Lee, James W., 585
Lee, William E., 915, 951, 1003
Leech, B. E., 1010
Leet, C. A., 954
Lefebvre, Gordon, 1036
Leffingwell, F. A., 933
LeGuille, Robert, 493*
Lehnert, Joseph, 1066
Leight, Charles T., 395‡
Leightizer, John F., 428
Lemmon, F. D., 583
Lennartson, Nils A., 961
Lennon, Joseph A., 419
Lentz, K. A., 465
Lentz, W. L., 579*, 662
Leukhardt, A. R., 1006
Levy, A. C., 960
Lewis, J. F., 665
Lewis, Lt. Col. Lawrence H., 216
Lewis, W. F., 1066
Libby, W. P., 933
Lienhard, L. V., 427
Light, Harry B., 391, 392*
Light, M. A., 960, 1040‡
Linton, A. C., 1069
Lipke, Donald J., 451
Lipscomb, W. P., 351
Litchfield, Harold P., 622
Little, J. H., 882
Livengood, John G., 702, 734*
Liversidge, R. M., 583
Lloyd, J. A., 507
Lloyd, U. E., 1068
Lobb, H. J., 960
Lockfaw, D. A., 463
Lockwood, Frank, 237, 735, 882*
Lockwood, Nathan K., 84*
Lockwood, Philip V. D., 737*
Lodter, C. F., 427, 463‡
Lofquist, E. A., 315
Loftis, J. D., 586, 668*
Lohmann, A. T., 465
Long, Fulmer, 83
Long, Harry H., 955
Long, R. D., 18
Loomis, Daniel P., 723
Lorenzen, H. C., 64
Lott, Lt. W. E., 143
Loudermilk, Ernest E., 585
Love, B. J., 427
Love, Carl D., 272, 353*, 570
Lovell, Capt. J. W., 70
Lovett, William E., 49, 507*
Loydon, Maj. M. J., 506
Lucas, Ralph, 451
Luce, R. D., 428
Lundborg, O. R., 427
Lyman, G. C., 1009
Lyman, Maj. G. R., 383
Lynch, Perry J., 426, 427, 541*
Lynch, Capt. T. R., 383
Lynch, W. E., 954
Lyon, A. E., 728
Lyon, C. M., 883
Lyons, Irving, 933
Lyons, J. P., 767
Lyons, W. W., 273, 961

M

MacDonald, A. S., 18
MacDonald, James, 78, 118 (correction)
MacDonald, R. M., 122
Macfarlane, Robert S., 1007
MacGowan, Charles J., 728
MacKenzie, D. A., 723
MacKinnon, Ewen W., 427
MacMillan, John A., 119
Macomb, J. de N., 1036‡
Macpherson, A. D., 771
Madsen, George W., 464, 506
Magee, Guy E., Jr., 612
Magee, James C., 713
Mahan, Lynn, 388, 504*
Mahaney, J. W., 884
Mahaney, Joseph T., 702, 735*
Mahoney, F. T., 624
Major, Lt. Col. John S., 339, 449*
Malcolm, A. R., 960, 1039*
Mallard, J. T., 428
Malmgren, L. A., 920
Malmquist, R. G., 428
Malone, H. D., 1036
Maly, Frank M., 79
Mamgren, Lewis A., 1008‡
Manderson, Dewey E., 585
Manning, George C., 919*
Manning, William K., 202
Manorek, Stephen A., 251*
Mansfield, Norman, 770
Marceau, Joseph E., 586, 737‡
March, J. E., 1070
Marine, I. T., 882, 922*
Maring, R. E., 884
Marion, L. J., 507
Markham, H. I., 350
Markley, Franklin A., 770
Marony, R. J., 958
Marsh, Ernest S., 583, 623*
Marsh, L. S., 1036‡
Marshall, Charles A., 731
Marshall, J. E., 883
Martens, W. F., 675
Marth, Maj. Albert F., 613
Martin, Claude M., 50‡
Martin, Guy E., 675
Martin, Robert M., 542, 625*
Martin, T. T., 702
Martin, William W., 273, 1010*
Mason, C. D., 1040
Massey, Johnnie A., 612
Massoth, C. G., 50
Masters, A. D., 883
Mather, Arthur T., 841, 1008‡
Mathews, W. P., 873*
Mathews, William M., 704*, 841
Matthews, A. G., 1069
Matthias, Edwin C., 541*
Mau, E. W., 960
Maunder, J. W., 1070
Mauney, H. C., 1038
May, A. W., 1068
May, Lt. Duffield R., 910
May, Harry C., 234
May, Herbert A., 731*
May, Stanley H., 83*
Mazetti, Capt. Frank P., 111
McCaffrey, Edward J., 506, 702*
McCaffery, F. L., 236, 237‡
McCaffrey, R. A., 933
McCarthy, A. C., 583, 665‡
McCarty, Earle E., 38
McClelland, W. R., 236
McClory, J. J., 84
McClogan, J. W., 704
McColl, Robert B., 579*
McConnehey, E. E., 394
McCool, Harry, 1066
McCormick, L. H., 50
McCullough, A. E., 665
McCullough, F. Witcher, 394*
McDaniel, W. Lyle, 872
McDaniels, C. E., 73
McDonald, S. K., 233
McDonald, Walter R., 984
McDonough, Roger I., 76
McDonough, Thomas A., 395, 543*
McDowell, C. G., 84
McDowell, J. L., 503
McElroy, George T., 841, 1009*
McEnany, C. E., 427
McEntee, John T., 464, 506, 667*, 959
McFarlane, W. T., 1070
McGahey, R. E., 884
McGarity, D. J., 420
McGauley, D. F., 626
McGreevy, W. J., 83
McGregor, Adam, 1040
McGregor, L. S., 1040
McIlwain, Harry W., 84
McIntosh, Mrs. Sally, 570*
McIntyre, Brig. Gen. Andrew F., 764*, 882
McKay, E. W., 1006
McKean, Herbert B., 580‡
McKeen, C. M., 122
McKeithen, Donald E., 883, 1009*
McKinney, A. W., 1036
McLaughlin, James J., 734
McMahon, M. W., 884
McMahon, S., 958
McManaway, Lt. Charles M., 380
McMillan, D. L., 586
McMillian, Gerald J., 612
McMullen, John, 736, 771*
McNamara, Daniel M., 543
McNamara, G. P., 50
McNamara, Virginia, 570*
McNeil, Marc T., 1070
McNeillie, R. G., 691*
McPherson, L. Z., 735
McPherson, W. G., 428, 584‡
McQuilkin, H. P., 122
McWhorter, Patrick H., 736, 1069
Mecouch, J. R., 586
Mee, Arthur E., 612
Megee, Caleb R., 41, 317*
Meissner, Edwin B., Jr., 1066
Melvin, Oral M., 298*
Melanson, A. C., 945*
Melvin, Ridgely P., 44
Memke, C. W., 1028
Meredith, Maj. Garland W., 687
Merkel, J. W., 1070
Merritt, B. S., 585‡
Mettelen, E. L., 665
Metzman, Karl L., 584
Meyer, A. E., 427‡
Meyer, F. J., 476
Meyer, Frank R., Jr., 1036
Meyer, Wallace, 1066
Meyers, B. R., 675
Meyers, W. L., 770
Middleton, Maury, 237‡
Middleton, R. J., 884, 1069*
Middleton, Ralph E., 767
Miles, John W., 239
Milks, J. O., 920
Miller, A. P., 1066
Miller, Anthony, 427
Miller, Lt. Arthur W., 612
Miller, Charles A., 585*
Miller, E. P., 41
Miller, H. Norman, 1005
Miller, J. V., 18
Miller, M. S., 84, 273*
Miller, Martin, 612
Miller, R. L., 464
Miller, W. E., 427
Miller, Wendell K., 144
Milliman, Elmer E., 728
Mills, G. F., 960
Mills, N. P., 508
Mink, W. P., 586
Mitchell, Col. Charles C., 666
Mitten, Robert, 353, 394‡
Mock, John W., 878
Moe, Lt. Col. John W., 72, 340*, 516*
Moench, H. H., 1069
Mohler, J. W., 503
Monahan, A. M., 507
Moll, L. A., 948
Molyneaux, E. J., 882
Montgomery, Charles T., 427
Mooney, J. R., 234
Moore, A. L., 770
Moore, F. F., 464
Moore, H. G., 961
Moore, Harold E., 428
Moore, M. B., 395
Moore, Walter S., 122, 237*
Moorhouse, E. B., 522
Moran, J. A., 583, 958
Morehead, William S., 465
Morfa, Raymond J., 83‡, 540, 602*, 880
Morgan, Daniel P., 503
Morgan, H. G., 586, 626*
Morgan, Harold H., 234
Moriarty, Wilson H., 1006*
Morrison, George L., 428
Morrison, S., 354
Morrissey, Michael F., 273‡
Morrow, G. W., 872
Morse, Charles H., III, 698, 732*, 839‡
Morse, Robert H., Jr., 1036
Morton, Charles I., 122*
Mosier, O. M., 835
Moss, Charles D., 735, 768‡
Moss, Roy, 703
Mottier, C. H., 1050
Moylan, John N., 78
Mozley, F. M., 627
Mueller, Alexander, 391
Mueller, E. W., 767
Mulally, James H., 768, 881*
Mulholland, J. J., 352, 736
Mulick, Col. George J., 308, 665
Mull, Howard, 872
Mulligan, F. J., 841
Mullikin, S. E., 882
Mulroy, J. L., 873*
Munro, St. John, 354, 428, 465‡
Murdoch, B. M., 1050
Murdock, D. K., 959
Murnane, Edward H., 1008
Murphy, E. F., 622
Murphy, Harry C., 352, 394*
Murphy, Martin J., 736, 842*
Murphy, T. J., 841

Murray, A. R., 543
Murray, Thomas, 586
Murray, Lt. Vernon, 416
Murrin, C. H., 17*
Muske, Paul W., 428, 464*
Musser, Capt. Foster, 910

N

Nagel, James, 624
Nalle, Richard T., 234‡
Nance, Dr. Fuller, 1070
Nash, A. J., 921
Nash, R. O., 663‡
Naumann, William, 270
Nay, Art, 704
Neal, Clarence L., 464
Neal, W. M., 691*, 932
Negley, S. R., 987
Neigh, Col. Paul M., 383
Neilson, E. S., 882, 922‡
Neison, J. T., 1068
Nelson, C. P., 123
Nelson, D. J., 1036
Nelson, Robert F., 350
Netter, C. A., 1066
Neubauer, C. B., 18
Neubeck, William N., 143*
Neupauer, Dr. Adolph, 391
Neville, E. V., 541, 1038
Newhouse, R. C., 767
Newman, L. F., 507, 543
Newsom, J. F., Jr., 960
Newton, M. V., 317
Nicholas, R. H., 960
Nicholson, J. M., 146*, 1059
Nickerson, E. C., 959*
Nickless, C. W., 770
Nicks, F. W., 920
Nicols, Harold J., 50, 507*
Niesse, J. L., 123
Niles, Leighton R., 143
Nimmo, J. D., 465
Noble, Col. Curtis A., 946
Noble, Daniel E., 119‡
Noltie, E. T., 1070
Nordeen, Uno E., 237, 316*
Noren, G. A., 884, 960*
Norman, Graeme C., 123‡
Norman, Joe B., 542, 769*
Norsworthy, Selma, 946*
Norton, Frederick H., 1066
Norton, Thomas L., 585*
Notgrass, Lt. Col. Charles D., 309, 427
Nugent, Frank B., 187, 234
Nye, C. M., 749
Nystrom, A. V., 884
Nystrom, K. F., 1059, 1060

O

Oakie, Col. Fred W., 221
O'Brien, J. F., 1066
O'Brien, M. A., 1068
O'Brien, S. F., 194
O'Brien, William L., 911
O'Connor, D. L., 238
O'Connor, J. M., 735
O'Dell, William S., 143*
O'Donnell, E. J., 732*
Offerman, H. A., 599*
O'Hara, H. Russell, 921
O'Hara, Una, 570*
Ohlson, Col. Otto F., 623, 665‡
O'Keefe, Raymond T., Jr., 1005
O'Leary, L. E., 507
O'Leary, R. J., 1070
Olfelt P., 624
Olin, W. H., 960, 1040‡
Olliff, H. S., 542
Olson, Conrad, 920, 958‡
Olson, L. M., 83
O'Malia, Joseph R., 736, 842*
O'Neil, Lt. J. T., 305
Osgood, R. H., 698
Oshmera, J. F., 923
Ostle, J. W., 318
Otte, R. W., 465
Otten, William C., 703
Ousley, H. L., 465
Overton, Richard C., 112*, 194
Owen, Thomas E., 318*
Owens, C. L., 460

P

Pace, Clyde W., 542, 584‡
Padden, J. R., 768
Painter, Brady G., 612
Palma, George, 921
Palmer, Guy P., 84, 122, 238*
Palmer, Norman E., 699
Pancake, Herman H., 503‡
Pando, Boris, 612
Pardee, E. L., 760
Parish, Charles O., 612
Park, Howard F., Jr., 78
Parker, E. T., 508
Parker, H. D., 1040
Parker, James T., 703
Parkes, Holcomb[illegible]57, 376*, 394
Parkinson, J. [illegible]12*
Parks, E. T., 1069
Parrish, J. A., 84
Parrish, J. B., 723
Parrish, R. R., 1068
Parsons, Alva B., 665
Pate, Bruce C., 543
Patjens, Henry K., 460
Patterson, C. A., 144
Patterson, Maj. Clem, 834*
Patterson, William J., 915, 951, 1003
Pattie, Frank, 395
Patton, Clyde M., 585
Patton, Joseph B., 878
Patton, T. R., 507
Payne, Ralph W., 350, 663
Payne, W. L., 1070
Peace, Robert L., 354
Pearce, E. S., 1060
Pearce, J. E., 394
Pearson, E. W., 1040
Pease, Ivan R., 586, 627*
Pedigo, C. R., 959
Peek, Walter E., 234
Peeler, T. L., 507
Peers, A. T., 238
Peffer, L. J., 464
Pelnar, A. R., 38
Peloubet, J. A., 597
Pence, B. F., 463
Pendy, Ormond R., 50, 508*
Penfield, William H., 884, 923*
Penfold, Alexander D., 615
Penland, G. H., 881, 958‡
Penman, Walter R., 580
Perkinson, T. F., 954*
Perrin, Frank, 578
Perry, W. A., 1066
Perry, W. H., 916
Petersen, Howard J., 238
Peterson, A. E., 507, 543
Peterson, G. R., 770
Peterson, G. T. C., 920
Peterson, H. A., 1039
Peterson, J. E., 1036
Peterson, Roy H., 84
Pettersen, George, 585
Peyser, L. E., 675
Pezely, Louis, 309
Pfau, J. W., 881, 919*
Phetteplace, Louis H., 735, 768, 769*
Phillips, E. F., 83
Phillips, R. W., 119
Philpot, S. F., 769
Pierce, E. E., 570*
Pierce, Robert R., 83
Pierson, Howard G., 506, 586‡
Pierson, Lewis E., 49*, 540
Pigott, Paul, 47
Pinschmidt, W. C., 122*
Pitts, F. D., 48
Pitzer, A. S., 735
Plant, Capt. James, 834*
Platt, Charles P., 1008
Plumley, Roy D., 583, 702‡
Podas, N. F., 413
Pond, C. E., 1060
Ponton, R. L., 1040
Porter, J. W., 50
Porter, L. A., 668*
Post, W. M., 368
Postans, R. H., 541
Potter, Maj. Joseph L., 111
Potts, W. M., 960
Powell, John S., 419
Powell, Mike, 542
Powell, N. A., 351
Powers, Ralph A., 1036‡
Pratt, Auguste G., 47
Pratt, H. R., 354
Preisch, Lt. Col. William W., 724
Prendergast, Albert D., 233
Prescott, D. C., 78*
Preston, David S., 612
Primm, W. P., 665
Pritchett, Loren S., 667
Proctor, C. C., 238
Prueter, Edward R., 1009
Pumphrey, Charles H., 585, 666*
Pupo, Melio A., 451
Putty, Malcolm, 316

Q

Qualls, Col. Everett H., 308, 496
Quarles, J. L., 18
Quarles, W. D., 84, 1040
Quinlan, Harold W., 586, 614

R

Radeke, Walter H., 187
Raessler, Capt. V. D., 305
Ragland, J. B., Jr., 770
Rainey, O. P., 883
Rainie, H. M., 18
Ralston, J. V., 1006
Rambo, W., 354
Ramey, E. E., 870
Ramsey, Hobart C., 349
Ramsey, J. F., 542
Randall, Walter M., 584
Rasmussen, D. O., 770
Rau, Clinton C., 921
Rauch, Fred C., 350
Ray, James L., 187
Raymond, A. A., 1060
Raymond, Murphy F., 251*
Rebhan, F. J., 680
Reed, F. W., 508
Reed, G. Y., 83
Reed, Harry B., 118
Reed, Ralph P., 585
Reed, Ralph T., 724*
Reed, T. L., 542
Reeder, George K., 507, 666*
Rees, Harry, 122
Reese, John B., 667
Reid, Howard C., 541
Reincke, Charles A., 1066
Reiser, C. H., 272
Reiser, Fred, Jr., 1066
Rentschler, Sherman O., 194*
Reppert, Robert C., 665
Requa, Earl F., 920, 1009*
Rettaliata, Dr. J. T., 879
Retter, Clyde A., 916
Reynolds, Fred N., 463, 464, 506*
Rhoads, William W., 391, 393*, 702, 735
Rhodes, Charles H., 388
Rich, Elmer, 911
Richard, L. J., 702
Richardson, Howard L., 1036
Richardson, W. L., 542
Richardson, William C., 354
Richeson, W. Lyle, 1066
Rickard, R. L., 317
Rickerson, H. T., 736, 921*
Riefel, F. F., 882, 919*
Rigdon, Paul, 235
Ringel, Charles, 622
Ripken, W. H., 503
Ripley, C. T., 1060
Ritter, H. J., 1036
Roberts, E. G., 18
Roberts, Isaac W., 48
Roberts, M. K., 853
Robertson, W. O., 351
Robertson, Walter H., 233
Robinette, Capt. George W., 735
Robins, Thomas, Jr., 460
Robinson, D. H., 1006
Robinson, E. H., 194
Robinson, George E., 50, 84
Robinson, O. J., 961
Robinson, P. D., 583
Robnett, C. C., 586
Roche, William M., 915
Rocke, Arthur, 233
Rockenstire, Walter C., 663
Roddewig, Clair M., 1033, 1038
Rodger, G. A., 136
Rodgers, Joseph W., 704, 737*
Rodman, A. E., 732
Roemer, Lester H., 47
Rogers, J. S., 272
Rogers, James P., 769
Rogers, Lt. Col. W. C., 341
Rohwitz, C. J., 1069
Romadka, O. H., 1039
Romaine, Millard, 767
Romann, R. H., 736, 961
Rose, Col. L. M., 34*
Rose, M. S., 626
Rosen, Herbert J., 1036
Rosenblum, Lou, 955
Rosevear, A. Beatty, K. C., 426
Ross, Maj. Gen. Frank E., 730
Ross, Frank E., Jr., 699*
Ross, H. A., 1008
Ross, M. E., 769
Ross, Vernon T., 736
Rosser, F. W., 736
Rosser, James B., 731
Roth, S. M., 61*
Rothe, Victor, 144
Rountree, G. M., 541
Rowe, F. H., 1068
Rowell, Glenn, 767
Rowland, H. R., 233*
Rowland, Ross E., 959
Roy, E. H., 428
Royal, James N., 457
Ruhl, David A., 123*
Rumsey, Perry, 584, 665‡
Rundle, Walter C., 724
Rush, John A., 841
Rushton, Howard, 1005
Russell, C. W., 584
Russell, Frank E., 627, 704‡
Russell, V. G., 428
Russell, William H., 238, 273
Rutledge, John J., 427

S

Sample, Gus H., 47*
Sanders, Allen W., 506, 625*
Sanders, Robert A., 269
Sanders, W. C., 1059
Sanderson, Lt. Col. C. S., 305, 543, 667*
Sanschagrin, C. E., 122
Santerre, J. L., 923
Sargent, L. W., 736
Saunders, Thomas D., 84, 428*
Scales, James L., 883, 1010*
Scandrett, H. A., 911, 958, 979*
Schafer, F. O., 586
Schamehorn, Col. A. J., 537
Schey, Robert, 842
Schiller, Carl, 257*
Schilling, Maj. Fred A. A., 258*
Schlendorf, J. M., 270, 350*
Schlosser, L. B., 960
Schmidt, C. N., 579
Schmitz, Ferdinand, 47
Schneider, John T., 731
Schonfelder, Carl, Jr., 842, 921
Schoonmaker, Edward H., 79*
Schoonmaker, J. Y., 233
Schrader, Fred L., 1008, 1038, 1068*
Schranz, Frederick G., 878
Schroebel, George E., 143*
Schukei, L. M., 922
Schwanhausser, E. J., 1036
Schwartz, Bernard M., 50
Schwartz, C. F., 961
Schwietert, A. H., 933
Scott, D. W., 1006
Scott, George S., 1009
Scott, Hubert H., 664, 701*
Scott, J. R., 1068
Scott, V. G., 916*
Scriven, G. A., 625
Seagren, John, 537*
Seal, Charles R., 1062*
Seay, T. H., 946*
Sebastian, Walter P., 579
Seder, Arthur R., 122, 235*
Segar, Harry B., 233
Selby, A. Paul, 580
Sell, John J., 1009
Semmes, Prewitt, 538
Sengel, C. L., 84
Serrett, J. F., 1039
Serrianne, Carmen, 142*
Sessums, J. V., 1040
Severs, J. W., 958, 1007*
Seyton, H. J., 749
Shanahan, T. F., 318
Shapley, R. H., 760
Shappell, Col. Merle M., 379
Sharfman, I. L., 73, 118
Sharp, C., 1040
Sharps, E. E., 960
Shaver, R. M., 915
Shaw, G. F., 1010
Shaw, Graydon, 465
Shea, J. A., 122
Shea, Lt. Col. James D., 612
Sheffe, E. D., 933
Shehee, E. B., 364*
Sheneman, J. F., 465
Shepherd, Warner B., 680
Sheppard, Joseph L., 352, 354, 463*
Sherman, E. W., 749
Shields, J. P., 723
Shiflett, James A., 612
Shipley, Grant B., 579
Shisler, W. G., 770
Shives, Vernon W., 665
Shores, James B., 273, 395*
Shoulty, C. C., 1039
Shreve, E. Carl, 354, 395*
Shults, K. C., 583
Shultz, Ernest R., 508, 626*
Shumaker, J. F., 1006
Shumway, Harvey E., 427, 542*
Sickel, Lewis J., 427, 506‡
Siddons, L. P., 933
Sides, H. A., 881, 958
Sieger, G. N., 655
Sienko, S. J., 1069
Siering, W. J., 960
Sikes, John M., 842, 961*
Silver, Francis A., 1033‡
Silvey, K. J., 508
Simmons, E. L., 770
Simmons, Robert G., 44
Simpson, J. G., 1069
Sinclair, W. E., 883
Singer, J., 884
Sisco, J. H., 586, 667
Skeeters, H. J., 702
Skinner, F. E., 583
Slack, L. J., 960
Slade, Lt. Col. George N., 308
Sladek, Jerome C., 920, 1008*
Slater, James A., 1006‡
Sloope, G. H., 667
Sly, Harmon, 503
Small, John D., 619
Smart, Ben, 984
Smedley, Joseph H., 391, 393*
Smirl, A. P., 842
Smith, B. P., 768
Smith, C. J., 234
Smith, Carl R., 352, 540‡
Smith, Capt. Charles E., 72
Smith, Lt. Charles L., 612

ELECTIONS AND APPOINTMENTS—Continued

*[*Indicates photograph and sketch; ‡Indicates sketch only]*

Smith, Daniel J., 665, 881*
Smith, David B., 1066
Smith, H., 586
Smith, H. H., 84
Smith, H. R., 238
Smith, Harry F., 960, 1070*
Smith, Horace L., 612
Smith, Hugh R., 770
Smith, J. G., Jr., 760
Smith, J. J., 662
Smith, J. W., 202
Smith, K. A., 351
Smith, Lloyd L., 960, 1009
Smith, M. L., 395, 958
Smith, N. S., 84
Smith, R. H., 237
Smith, Rommie B., 354, 465*
Smith, S. G., 194
Smith, T. G., 272
Smith, Vernon A., 47
Smyth, Murray O., 504
Smythe, C. B., 1036
Snellgrove, Lt. Col. Neal F., 529
Snyder, A. R., 771
Snyder, G. E., 364
Snyder, George I., 665
Somers, George W., 465
Sorenson, R. C., 508
Sorgenfrei, N. F., 194
Souther, R. Stanley, 1069
Sparks, E. C., 464, 507*
Sparks, F., 882
Sparks, Fred W., 699
Sparks, Thomas C., 238, 272*
Sparks, William H., 476
Sparling, John M., 842, 882
Speidel, Capt. Roger W., 612
Spence, Eugene B., 238
Spencer, J. Brookes, 537
Spette, Albert E., 585
Spofford, F. R., 675
Springer, B. A., 1036
Sproul, Robert C., Jr., 1068
Spuhler, Ernest, 878
Squibbs, H. A., 503
Stackpole, Stephen T., 883, 960‡
Stacy, Henry P., 426
Stacy, Walter P., 118, 728
Stainton, Samuel D., 841, 882*
Stall, B. G., 464
Stanfield, J. R., 542
Stanton, Arthur T., 638
Sted, Norman, 537
Steel, David A., 771
Steele, Joshua E., 667
Steele, William D., 583, 623*
Steffy, Edwin T., 395, 426, 506‡
Stein, Donald B., 391, 394*
Steiner, R. J., 427
Stemple, C. B., 1040
Stenberg, A. C., 542
Stephen, George, 691*
Stevens, C. C., 1066
Stevens, Lt. Col. Miles G., 378, 609
Stevenson, A. R., Jr., 264
Stevenson, Lt. Col. H. A., 460
Stevenson, J. W., 1069
Stevenson, Robert E., 49, 122‡
Stewart, Charles P., 83
Stewart, J. W., 920
Stewart, M. D., 364
Stewart, Terah J., 584*
Stewart, William E., 506, 624*
Stickel, H. Richard, 532
Stiebling, Lester B., 272
Stiff, Capt. Frederick, 910
Stockard, Lt. Col. James J., 218*
Stoddard, Col. Arthur E., 305
Stoeber, C. A., 507
Stohr, F. H., 579
Stokes, C. W., 1070
Stoll, J. Otto, 911
Stoltz, G. W., 883
Stone, G. T., 667
Stone, W. G., 933
Stoney, K. R., 882
Stout, L. D., 83
Stover, C. W., 464
Stradtman, George W., 542, 703*
Straight, James L., 699
Strickland, Charles A., 273
Strickland, Clifford A., 627, 704*
Strohm, H. C., 625
Strolle, M. H., 272
Strong, James E., 612
Strother, M. E., 1039
Stuart, J. F., 70
Stuart, W. P., 883
Stubbs, H. G., 85
Stuebe, Col. Louis F., 766
Sturdy, John R., 1070
Sturm, Otto, 84
Sturtevant, F. T., 585
Stutson, Alverd C., 1066
Sullivan, Cove W., 233
Sullivan, E., 542
Sullivan, Joseph T., 923
Sullivan, W. P., 736
Sundel, Daniel S., 1009
Susko, Mike, 672*
Sussman, George J., 698
Swain, Lawrence R., 257*
Swander, Ira A., 920
Swanson, C. E., 1070
Swanson, Duane T., 984
Sweeney, James E., 878
Sweetin, H. D., 883, 922‡
Swenson, John F., 626
Syfan, J. K., Jr., 702
Sykes, A. R., 50

T

Taft, Marshall B., 580
Tambling, J. K., 884
Tarpey, John T., 119
Tate, A. E., 237*, 908
Taub, J. A., 451
Taylerson, Ewart S., 597
Taylor, Comm. B. W., 699*
Taylor, Gordon E., 1066
Taylor, R. E., 882, 958*
Taylor, Richard, 724*
Taylor, S. B., 350*
Taylor, William L., 625, 666*
Templeton, Walter M., 583*
Ten Eyck, J. G., 349
Tennis, A. R., 507
Terbell, Joseph B., 1036
Thomas, A. H., 315
Thomas, Mark W., 506, 624*
Thompson, Blair L., 123
Thompson, Curtis C., 585
Thompson, D. B., 987
Thompson, F. L., 675
Thompson, J. S., 667
Thompson, Joseph M., 427
Thomson, L. C., 1070
Thonwell, E. A., 350
Thorp, John N., 351‡
Thorsen, O. A. C., 123
Thran, Richard C., 921
Tidabock, A. F., 665, 881*
Tierney, P. J., 238
Timothy, Capt. William C., 417
Tinsley, J. C., 922
Tipton, J. W., 884
Tobin, Leo S., 882
Tobin, Thomas J., 42, 531
Tomb, R. W., 770
Toney, C. L., 585
Torinus, L. E., Jr., 768
Tormoen, Capt. Omer T., 725
Tosh, Arthur C., 391, 392*
Toth, Andy, 732
Towle, C. E., 920, 1038*
Towner, M. E., 18
Towns, R. E., 507
Townsend, F. B., 933
Townsend, J. R., 11
Tracy, L. J., 42
Trautman, B. J., 569*
Traynor, Raymond W., 921
Trimble, South, Jr., 419
Trinker, R. C., 1040
Trissal, J. M., 586, 626*, 744, 987
Troth, R. W., 487
Trovillion, Ralph C., 770
Trovillion, Robert A., 354, 428*
Tryor, Charles G., 1009
Tudor, W. H., 233*
Tully, John D., 78*
Turner, F. C., 18
Turner, F. E., 921
Turner, Frank P., 960, 1069‡
Turner, Lt. Col. P. E., 34*
Turner, R. L., 85
Turner, William J., 123
Turrentine, John F., 395
Turvey, James L., 351
Tuttle, Frank M., 542, 703, 770*
Twist, G. F., 1036
Tyre, J. L., 318

U

Uhl, George H., 667
Underwood, K. C., 235
Urbach, H. H., 1060

V

Valentine, Ray E., 233*
Vandercook, Elliott V., 906, 919
Vandersluis, W. M., 586, 626‡
Van Iderstine, W. P., 585
Van Liew, Gerald J., 1066
Van Luvanee, George F., 921
Van Maren, N. P., 882
Van Pelt, Mark B., 1009
Van Vranken, H. D., 771
Van Winkle, Charles B., 529
Vaughan, R. C., 945*
Veatch, C. E., 770
Verbarg, L. E., 923
Verd, P. H., 543
Vickers, Murray A., 78
Victory, G. C., 883
Vincent, Roy S., 959
Vines, William J., 142*
Visintainer, A. A., 202
Voigtmann, R., 960
Voorhees, H. B., 623

W

Waddell, William D., 193, 235*
Wade, Herschel L., 612
Wade, J. W., 18
Wadsworth, Maj. Lester, 70
Wagner, John, 960*
Wagner, P. P., 1040
Wagner, Maj. Sidney P., 612
Wagoner, K. J., 736
Waite, J. F., 961
Walkden, William, 194, 239‡
Walker, Dr. Calin A., 50‡, 354
Walker, E. O., 881
Walker, Henry L., 702
Walker, L. G., 1008
Walker, L. G., Jr., 1068
Walker, Robert R., 298*
Wall, C. A., 83
Wallace, D. B., 1070
Waller, P. H., 194‡
Walpole, Charles, 884
Walsh, J. H., 1066
Walter, George W., 1066
Walton, Arthur R., 959*
Walton, H. I., 1009
Walton, N. B., 945*
Ward, Richard J., 1009
Wardwell, W. C., 884
Warmack, G. W., 194, 1039
Warner, Edward O., 78*, 118
Warrell, C. O., 770
Warren, C. I., 735
Warren, Hermon E., 18, 701, 768*
Warren, Robert B., 1036
Warthen, H. J., 923, 961‡
Wartmann, William H., 465
Washburn, Dr. W. W., 354
Waterhouse, David M., 233
Waterman, E. G., 770
Waters, Leason L., 584, 841*
Waters, W., 736
Watson, M. G., 1040
Watson, Ralph M., 234
Watts, Waldo B., 259*
Wayne, Roger S., 391
Webb, E. W., 662
Webb, Philip A., Jr., 416
Weber, Fred A., 667
Weber, Roy H., 47
Wedge, Daniel A., 973*
Weedin, C. C., 703*
Weeks, M. F., 882
Weinland, R. A., 233
Weis, William B., 1009
Welch, A. E., 663
Welch, J. H., 318
Wells, J. E., 542
Wells, M., 85
Welton, Donald, 142*
West, Ernest J., 238
Westington, W. A., 318
Weston, Joseph, 233
Weyerhaeuser, John P., Jr., 917
Whadcook, C. F., 507
Wheeler, Charles M., 699*
Wheeler, George R., 506, 667‡
Wheeler, J. E., 428
Wheeler, Col. John, 272
Wheeler, William A., 1068
Whilldin, Capt. A., Jr., 383
White, G. C., 1038
White, Henry C., 703, 770*
White, L. L., 406*
White, Warren R., 921
Whitehead, William H., 391, 393‡
Whitehouse, Donald L., 460, 503*
Whitlock, A. N., 911, 958, 1008*
Whitney, Elbert L., 736, 770‡
Whitsitt, W. B., 122
Whittington, W. E., 624
Wickstrom, G. T., 18
Wiegele Charles F., 882, 921*
Wilkerson, Henry D., 770, 883*
Wilkins, F. S., 586
Wilkinson, H. R., 428, 736
Wilkinson, Wesley A., 83
Willard, H. L., 770
Willard, Nelson W., 583, 623*
Williams, Albert N., 840*
Williams, Angus H., 85‡
Williams, Arthur X., 391, 393*
Williams, B. E., 922
Williams, B. P., 736
Williams, C. D., 1009
Williams, E. L., 769
Williams, Edward E., 264
Williams, Ernest T., 665
Williams, Eugene S., 235
Williams, Glenn A., 704
Williams, Hubert L., 1036
Williams, James K., 667, 736*
Williams, R. A., 270*
Williams, Richard T., 922
Williams, T. D., 464
Williamson, C. A., 987
Williamson, J. T., 194
Williamson, N. M., 18
Williamson, Brig. Gen. W. J., 574*, 698, 725‡
Willingham, G. J., 354
Willis, H. C., 427
Willis, R. W., 104
Wilson, A. A., 84
Wilson, Boyd, 584
Wilson, Frank, 921
Wilson, Gordon, 960
Wilson, H. A., 507
Wilson, Harold K., 233
Wilson, K. W., 1039
Wilson, O. P., 1036
Wilson, P. D., 769
Wilson, S. A., 122
Winchester, R. C., 506, 584*
Wing, Leroy W., 272, 353
Wink, L. R., 123
Winkler, W. R., 464
Winne, Harry A., 460, 461‡
Winslade, L. M., 667
Wiprud, Arne C., 76‡
Wise, Roger M., 1036
Wiseman, E. P., 426
Wittmer, Russell J., 118*
Wittnebert, Lester, 584
Wolfe, A. E., 1006
Wolmstrom, John, 47
Wolverton, M. M., 882
Wood, C. E., 234
Wood, Frank R., 538*
Wood, H. J., 84
Wood, Walter F., 538
Woodcock, William I., Jr., 82*
Woodings, Emanuel, 839, 879*
Woodings, Wilbert H., 839, 879*
Woodruff, Robert W., 918
Woodward, E. L., 1059
Woody, G. V., 767
Woolley, Robert W., 76
Wootton, Francis E., 882, 920‡
Workman, Willard M., 1009
Worshill, Capt. Jack, 380
Worthington, F. S., 1038
Worthington, Kenneth, 48
Woulfe, James J., 585
Wreford, Harold W., 1010
Wren, B. E., 724*
Wright, C. W., Jr., 426
Wright, Edwin F., 354, 508*
Wright, F. A., 350
Wright, James B., 955
Wright, Lt. Col. Robert A., 329, 416
Wright, S. L., 919
Wright, W. H., 272
Wright, W. J., 383
Wunderlich, Norman, 233, 460

Y

Yarborough, G. R., 84
Yarnall, Dr. Robert, 264
Yeager, John W., 76
Yealland, John R., 702
Yeater, F. L., 735
Young, Bernard E., 394, 463*
Young, C. R., 354
Young, Brig. Gen. Charles D., 727‡
Young, Dalton, 586
Young, Edward H., 143
Young, F. J., 122
Young, Paul S., 1008
Young, R. C., 123
Young, W. L., 960, 1010*
Young, Wayne, 884
Young, William H., 83, 353*
Yount, Brig. Gen. P. F., 698

Z

Zane, W. F., 104
Zansitis, Stanley, 767

OBITUARY

[*Indicates photograph and sketch; ‡Indicates sketch only]

Abbihl, R. L., 465
Anderson, John A., 194
Argust, E. C., 1066
Arnoll, Robert C., 583, 586, 627, 668‡

Bargman, Ewald F., 923
Barrow, Dr. Craig, 465
Baskerville, John B., 1040
Bateman, Charles L., 194, 354, 395‡
Bates, William W., 123
Baylis, J. B., 47
Bedford, William J., Jr., 737
Bell, Charles N., 318
Blair, A. E., 84
Bond, F. L. C., 1040
Brinkerhoff, James H., 1040
Brown, Curtis W., Jr., 273‡, 394
Brown, Harrison, 704
Bryant, William H., 188
Buchanan, R. E., 884‡
Buckley, W. J., 771‡
Burns, Charles W., 351
Burton, Thomas L., 1040

Campbell, Eldon R., 879
Carpenter, Claude B., 194
Carroll, Frank M., 770
Cashen, J. S., 464
Clark, Lt. William E., 531
Cleary, Joseph T., 704, 768
Coe, Charles W., 354
Conniff, Thomas M., 318
Crandall, Bruce V. P., 916‡

Daniels, Art, 50, 84
Davis, Charles W., 194
Deegan, William C., 768, 771
deFuniak, Ernest A., 627*, 667
Delafield, M. Livingston, 463
Deming, Laurent C., 704
Devine, Harry G., 704‡, 737
Dickinson, Thomas R., 668‡, 704
Dinnen, Dr. James M., 354
Dowling, J. J., 84
Drummond, Alber A., 771‡
Dyas, J. F., 1070

Edwards, C. F., 49
Elliott, L. E., 234
Evans, Edward S., 461‡, 538

Farmer, Clyde C., 1006*
Fitts, Charles F., 700‡
Fleming, E. K., 428
Fortier, J. O., 920
Foulkes, Henry, 883

Gafner, S. W., 238
Garrigues, H. H., 123
Gersbach, Otto, 771
Gilchrist, John F., 273
Goddard, F. W. D., 85, 236
Goodwin, Edward L., 461
Gormley, Michael J., 627*
Guilbert, Harry, 663‡

Hanley, John W., 123
Harper, I. M., 427
Harrison, G. A., 428
Haskins, G. A., 923, 1010*
Haucer, G. F., 769, 771
Hoon, Frank R., 586‡, 768

Jackson, R. T., 665
Jacobs, N. T., 916
James, Bessie L., 50
Jenkins, Horace G., 239
Johnson, W. B., 49
Johnston, F. M., 923
Jonah, Frank G., 1010, 1070*
Jordan, Robert C., 704

Kempton, Mortimer R., 840
Kilker, J. E., 736
Kleine, A. L., 704
Knapp, Herbert S., 736, 737
Kraft, Walter A., 923
Krueger, Albert J., 668*

Lash, Percy H., 586‡
Leahy, Edward H., 879
Lister, F. G., 543‡, 586
Llewellyn, W. D., 428
Locke, John H., 879‡
Long, W. Rodney, 500
Lord, James F., 1040, 1070‡
Luth, Frank G., 1036

Macalister, J. N. K., 586
MacArthur, Frederic V., 1006
Mansfield, W. L., 427, 884
Marx, G. A., 465
Maxey, Oliver, 735, 842‡
McAndrew, Robert E., 923, 961‡, 1010
McCarthy, Frederic D., 508, 920
McCready, Harold, 270*
McHugh, Charles O., 737‡, 882
McInerney, John L., 1008, 1010
Messick, Charlton, 85‡, 122
Milholland, Dr. Edward V., 122, 465, 1070
Miller, Ralph C., 1010
Mitchell, Robert M., 428
Monks, John J., 586
Musser, Alfred J., 842

Ogden, J. C., 234, 538
Olson, C. H., 194

Park, E. A., 771, 884‡, 961
Parker, Arthur L., 350
Parr, Marion J., 84, 85, 194‡
Parsons, Alva B., 737
Parvin, Walter R., 239*, 508
Pate, Heath, 428
Pawsey, Fred A., 461
Peabody, James A., 85‡
Phillabaum, R. G., 461
Post, Robert C., 47

Quelch, Bertram, 318‡, 463, 702

Read, Harold D., 663*
Rech, W. F., 194, 543
Ridgway, Amos C., 318
Roberts, John J., 767, 879‡
Rochester, Robert K., 354‡
Roope, Thomas, 50
Ross, R. J., 770, 771
Ryan, Col. Norman A., 771, 884‡, 1025
Ryan, P. T., 188, 234‡

Salt, Albert L., 622
Sauve, William H., 354
Schaff, C. E., 771
Searles, Edward J., 354, 388*
Seymour, George S., 461
Shelburne, A., 961, 1038
Shotwell, G. S., 1038
Sloan, Matthew S., 49, 701
Smith, George E., 1036
Spalding, Samuel A., 79*
Sperry, Edward G., 840
Stapp, William, 123
Stokes, Arthur W., 1009, 1010
Strauch, John B., 48
Stewart, Arthur T., 508
Streett, D. H., 239
Strong, Charles F., 239, 273‡, 352

Thomas, Frank W., 543‡
Thompson, F. Archer, 461
Thornton, George K., 884‡
Tierney, H. J., 48‡

Umshler, John L., 464, 465, 508‡

Vanderpool, W. K., 233

Wagner, Wilmar G., 194
Walker, Robert J., 465
Walters, George L., 461
Welch, W. T., 464, 465
Wendt, John A., 700
Williamson, T. J., 464, 465
Wilson, A. B., 1070
Wilson, Charles H., 504, 537, 538*
Woodlock, Thomas F., 358
Wynns, Charles M., 85‡

Yealland, Frederick R., 702, 704

RAILWAY CONSTRUCTION

Atlantic Coast Line, 536, 1066

Baltimore & Ohio, 80, 120, 502, 732, 955

Central of Georgia, 955
Chambers-Liberty Counties Navigation District, 955
Chesapeake & Ohio, 80, 461, 1035
Chicago, Milwaukee, St. Paul & Pacific, 270
Chicago, Rock Island & Pacific, 502
Clinchfield, 461, 917

Denver & Rio Grande Western, 917

Florida East Coast, 502, 955

Grand Trunk Western, 388

Missouri Pacific, 502, 732, 917

New York Central, 80, 502, 955
New York, New Haven & Hartford, 80, 537
Northern Pacific, 351, 1066

Pere Marquette, 388

Reading, 502

Seaboard Air Line, 80
Southern, 46
Spokane, Portland & Seattle, 956

Texas & Pacific, 388

Union Pacific, 121, 232, 878

FINANCIAL NEWS

Aberdeen & Rockfish, 1006
Alabama, Tennessee & Northern, 1037
Alexander, 1037
Alton, 234, 581
Arcata & Mad River, 270, 917
Arkansas, 315, 504
Arkansas & Memphis Railway Bridge & Terminal, 270
Atchison, Topeka & Santa Fe, 48, 189, 315, 663, 767
Atlantic Coast Line, 48, 315, 700, 1037

Baltimore & Ohio, 48, 120, 504, 539, 581, 663, 700, 733, 840, 879, 956, 1006, 1067
Bangor & Aroostook, 539, 733
Beaufort & Morehead, 1037
Boston & Maine, 80, 390, 700, 1006
Bowdon, 504
Buffalo Creek, 622, 917

Canadian National, 663
Canadian Pacific, 879
Central of Georgia, 879
Central of New Jersey, 48, 120, 733, 767
Chesapeake & Ohio, 80, 121, 462, 504, 663, 733, 1037
Chicago & Eastern Illinois, 270, 462
Chicago & North Western, 121, 956, 1067
Chicago, Burlington & Quincy, 80, 270, 504, 539, 622, 700, 733, 917, 1006, 1037, 1067
Chicago, Indianapolis & Louisville, 539, 956
Chicago, Milwaukee, St. Paul & Pacific, 48, 80, 767, 879, 956
Chicago, Rock Island & Pacific, 189, 315, 390, 504, 622, 663, 767, 880
Colorado & Southern, 80, 700

Delaware & Hudson, 121
Delaware, Lackawanna & Western, 121, 426, 700, 917, 1006
Denver & Rio Grande Western, 189, 504, 700, 1037

Erie, 48, 189, 539, 700, 917, 956, 1006, 1067

Florida East Coast, 190, 271, 351, 390
Franklin & Carolina, 80

Great Northern, 48, 80, 271, 315, 390, 426, 504, 917, 1037, 1067
Green Bay & Western, 664
Gulf, Mobile & Ohio, 271, 351, 505, 622, 700, 956, 1037

Illinois Central, 234, 351, 390, 701, 733, 880, 1006, 1007, 1037, 1067
Illinois Terminal, 581, 956
International-Great Northern, 190

Kansas City Southern, 190, 581, 664, 767, 917

Lehigh & New England, 462, 581, 700, 768
Louisiana & Arkansas, 80
Louisiana Midland, 505, 880
Louisville & Nashville, 48, 121

Maine Central, 700, 918, 1037
Meridian & Bigbee River, 234, 768, 918
Middletown & Unionville, 271
Minneapolis & St. Louis, 48, 840
Minneapolis, St. Paul & Sault Ste. Marie, 351
Missouri-Kansas-Texas, 623, 664, 733, 880, 956, 1037
Missouri Pacific, 80, 121, 234, 351, 956
Moore Central, 390, 505, 733

New Orleans, Texas & Mexico, 81
New York Central, 81, 190, 234, 271, 352, 840, 957, 1037
New York, Chicago & St. Louis, 956
New York Connecting, 581, 733
New York, New Haven & Hartford, 121, 234, 390, 539, 880
New York, Susquehanna & Western, 271
Nezperce, 623
Norfolk & Southern, 48
Northern Pacific, 81, 121, 316, 390, 462, 505, 539, 1007, 1037

Pacific Electric, 664
Pennsylvania, 48, 81, 121, 190, 234, 539, 701, 918
Pere Marquette, 539, 664, 700, 880, 957
Pittsburgh & Lake Erie, 81
Pittsburgh & West Virginia, 539, 664
Port of Palm Beach District, 733

Reading, 539, 1067
Rock Island Southern, 1038
Rutland, 918, 1067

St. Louis-San Francisco, 235, 701, 734, 880
Saratoga & Schuylerville, 1038
Seaboard Air Line, 81, 664
Southern, 48, 462, 664, 840, 918, 957, 1007, 1067
Southern Pacific, 48, 271, 352, 462, 505, 540, 622, 768, 880, 1007

Tampa Northern, 316
Terminal Railroad Association of St. Louis, 190, 581, 623, 734
Texas & Pacific, 121, 190, 505, 701
Texas City Terminal, 390, 957, 1067

Union Pacific, 426, 540, 623

Valley & Siletz, 390, 540
Virginian, 49

Western Maryland, 581, 734
Western Pacific, 121, 271, 352, 918, 957
Wheeling & Lake Erie, 81, 390, 505, 540
Wichita Falls & Southern, 121
Wisconsin Central, 121

ABANDONMENTS

Atchison, Topeka & Santa Fe, 880
Atlantic Coast Line, 82, 461

Buffalo & Susquehanna, 1037

Central of New Jersey, 190, 880, 957, 1067
Chesapeake & Ohio, 121, 352
Chicago & North Western, 235, 701, 1036
Chicago, Attica & Southern, 49, 352, 391
Chicago, Burlington & Quincy, 582, 957
Chicago, Milwaukee, St. Paul & Pacific, 82, 190, 352, 391, 461
Chicago, Rock Island & Pacific, 504

Delaware & Hudson, 190
Delaware, Lackawanna & Western, 316, 957

El Paso & Southwestern, 701

Grand Trunk Western, 352
Great Northern, 82

Illinois Central, 82, 190, 235
International-Great Northern, 918

Kane & Elk, 270

Louisville & Nashville, 918

Marinette, Tomahawk & Western, 957
Midland Valley, 701
Missouri Pacific, 190, 957

Nashville, Chattanooga & St. Louis, 82, 918
New York Central, 121, 270

Pacific Electric, 82, 582, 622
Pittsburgh & Lake Erie, 461, 918

Reading, 82, 270, 391, 504, 622
Red River & Gulf, 391

St. Louis San Francisco, 82
St. Louis Southwestern, 582, 1037
Seaboard Air Line, 270, 582, 918
Southern, 193, 391
Southern Pacific, 582, 701

Texas & New Orleans, 270, 1067
Tuckaseegee & Southeastern, 582

Union Pacific, 49, 82, 193, 235, 918

Western Maryland, 82, 582

Yosemite Valley, 49